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(U. S. DEPARTMENT OF AGRICULTURE.)

BUREAU OF PLANT INDUSTRY—BULLETIN NO. 21. – 30

B. T. GALLOWAY, Chief of Bureau.

LIST

OF

AMERICAN VARIETIES OF VEGETABLES FOR THE YEARS 1901 AND 1902.

BY

W. W. TRACY, Jr., Assistant,

BOTANICAL INVESTIGATIONS AND EXPERIMENTS.

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LETTER OF TRANSMITTAL.

U. S. DEPARTMENT OF AGRICULTURE,
BUREAU OF PLANT INDUSTRY, OFFICE OF THE CHIEF,
Washington, D. C., May 7, 1902.

SIR: I have the honor to transmit herewith the manuscript of a List of American Varieties of Vegetables for the years 1901 and 1902, and respectfully recommend that it be published as Bulletin No. 21 of the Bureau series. The manuscript was prepared by Mr. W. W. Tracy, jr., Assistant, Botanical Investigations and Experiments, and was submitted by the Botanist.

Respectfully,
B. T. GALLOWAY,
Chief of Bureau.

Hon. JAMES WILSON,
Secretary of Agriculture.

PREFACE.

In the Yearbook of the Department of Agriculture for 1900 (p. 543) it is stated that American seedsmen catalogued the preceding year 685 real or nominal varieties of cabbage, 320 of table beets, 340 of sweet corn, 560 of bush beans, 255 of pole beans, 320 of cucumber, 530 of lettuce, and an equally large number of varieties of other vegetables.[a] In such a maze of names, a large proportion of which are accompanied by the most meager descriptions, the progressive cultivator, endeavoring to ascertain what varieties are best adapted to his particular location, soil, climate, and uses, has little to guide him. Among seedsmen, also, similar difficulties exist. A small number of the larger houses maintain extensive trial grounds, but the information secured in this way is usually not made public. There remains a strong demand, both from the seed trade and from the public, for more precise information about the qualities of the various advertised varieties—information which can be furnished only after years of careful study and experimentation. There is one necessary preliminary to such work, namely, a catalogue of the names of the varieties.

There is no published work which gives all the varieties of vegetables sold by American seedsmen, and the Department of Agriculture has therefore undertaken to supply this want with a list, which is presented herewith.

The list has been prepared by Mr. W. W. Tracy, jr., who has charge of the Department's variety testing, with the aid of Mr. J. E. W. Tracy, also of the Department of Agriculture.

FREDERICK V. COVILLE,
Botanist.

OFFICE OF THE BOTANIST,
Washington, D. C., April 26, 1902.

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[a] In counting the number of these varieties, names were included which differed from others simply by the addition of a descriptive word, such as "improved," "large," "early," or the names of persons, while other varieties, having attached to them unimportant descriptive words, such as "select," "new," and "choice," were not included.

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LIST OF AMERICAN VARIETIES OF VEGETABLES

FOR THE YEARS 1901 AND 1902.

INTRODUCTION.

This list is intended as an index or catalogue to serve the purposes of seedsmen and experimenters, and aims to supply information which can not be readily found in seedsmen's catalogues. For those who wish to obtain a certain variety the names are given of all seedsmen in the United States and Canada who catalogue that variety; for those who inquire for synonymous varieties there will in many cases be found synonyms given with the names of the seedsmen who cite them as such; while for those who look for a shortening and simplifying of our already long and complex list of names there will be found here a foundation upon which such work can be carried on.

Variety names of vegetables in this country are being greatly multiplied every year by the renaming of old varieties. This practice, as well as the giving to new varieties names similar to names already used, has made the nomenclature of the whole very complex and misleading. The 320 names of lettuce entered in the list, for example, could be reduced to less than 90 distinct varieties, and the similarity of many of the names and the distinctions which must be borne in mind to separate the varieties make the whole subject very bewildering. To illustrate, the Favorite, Rudolph's Favorite, Sutton's Favorite, Florida Favorite, and Gardeners' Favorite varieties of lettuce refer to types very different from one another, while Early Dutch Butter, Dutch Speckled Butter, Hornberger's Dutch Butter, Philadelphia Dutch Butter, and Philadelphia Butter all refer, except the last, to the same variety. Besides this, there are often several different types of the same variety recognized by different seedsmen, as is well illustrated by the case of the Philadelphia Butter and Silver Ball varieties.

Besides being useful for reference, this list, it is hoped, will bring about some desirable changes, of which the first to be mentioned is the adoption of a single name for all identical varieties. There are, however, some difficulties in the way which should be well understood before such work is undertaken. Where the names are similar the varieties are generally identical, but, as already pointed out, there are, altogether, a large number of cases where they are not so; besides this there are often recognized by different seedsmen several widely different types under the same variety name. Then also certain words which might be dropped from most names must be retained in others, as, for example, "extra" and "early," which may be dropped from the variety of bean known as Extra Early Red Valentine, but must be retained in the Extra Early Refugee variety to separate it from the distinct variety commonly known as Refugee. For these reasons very few inflexible rules for shortening and simplifying our variety names can be laid down. It will require extensive field tests to determine all of our synonymous varieties, but it is hoped that this list, perfected by successive additions and corrections, will bring about a better understanding of varieties, especially as regards synonyms, and finally establish a body of distinct varieties, eliminating many synonyms which now claim the attention of the trade and public as representing distinct varieties.

Another improvement which this list should bring about is the prevention of the duplication of old names or the giving to new varieties names which closely resemble some old name. Introducers of new varieties have sometimes given names to their introductions exactly duplicating names already applied to other varieties, or if not duplicating them very much resembling them, not knowing, of course, that such names existed. By referring to this list introducers will hereafter have a means of preventing the confusion arising from this source.

RULES OF NOMENCLATURE.

In preparing this list the following words and phrases have been omitted from the variety name as being unnecessary, and multiplying names which mark no real varietal differences: Improved, extra, perfected, pedigree, select, extra select, choice, extra choice, superior, celebrated, fine, famous, our, our own, true, new, the, and the names of persons. Exceptions have been made and some of the above words retained where they are supposed or claimed to indicate a real difference in type or where the dropping of such a word would be confusing and misleading because the variety is generally and familiarly known only by the full name, as in case of Horsford's Market Garden and Nott's Excelsior peas. The words giant, mammoth, large, early, and extra early have in every case been retained, because, though not usually indicating a difference in type, there are many cases where they do indicate such a difference. There is, perhaps, more reason for retaining the words "improved" and "perfected" and the names of persons than the other words mentioned as omitted, and for this reason they have been allowed to stand in the groups of similar names, though, as already stated, they have been omitted from the alphabetical arrangement.

Occasionally some of the above descriptions mark real superiority of stock, especially as regards purity and vigor, due perhaps to careful "rogueing" or to climatic, soil, or cultural conditions. It would be much better, however, if such superiority were left to be known by the reputation of the seed house rather than advertised by the addition of the seedsman's name or adjectives to the simple variety name, a practice which has been so much abused that these additions have little or no significance.

Besides the above reductions in the regular catalogue names other changes have been made, as follows: When the words "earliest" and "early" are applied by different seedsmen to the same variety, not marking any difference in type, as in Early Sheffield and Earliest Sheffield, that one of the two forms has been taken up which has been most generally adopted by seedsmen. Incomplete variety names like Plum and Cherry have been changed to more exact names, as Yellow Plum, Red Plum, Yellow Cherry, and Red Cherry, wherever it has been possible from the descriptions given in the catalogue to determine which kind is referred to.

In beans the name Lazy Wives of some seedsmen has been changed to the more generally recognized Lazy Wife, and Marrowfat whenever used is changed to Marrow. In beets the words "blood" and "turnip" not being used with any regularity by seedsmen, even with reference to the same variety, have been dropped from names whenever possible, and retained only when they serve to distinguish different though similar-named varieties, as Bastian's Half Long Blood and Bastian's Blood Turnip, or where the dropping of them would make the name misunderstood or incomplete, as in Early Blood Turnip. In cabbages "headed" and "heading" have been dropped from all names and Holland changed to the more generally accepted name Hollander. In cauliflower Late Algerian has been changed to the more generally accepted name Late Algiers. In lettuce Early Stone, Golden Stone, and Spotted Dutch Butter were changed to the more generally accepted names Early Stonehead, Golden Stonehead, and Speckled Dutch Butter, and the words "white-seeded" and "black-seeded" retained only when necessary. In muskmelons the words "cantaloupe," "citron," and "nutmeg," not being used with any regularity for the varieties to which they are applied by some seedsmen, have been dropped from variety names, excepting where it has been necessary to retain them to make a name complete. In onions "long-keeping" has been dropped from all names. In peas "marrow" has been changed to "marrowfat." In peppers "thornless," which botanically speaking is an incorrect term to apply to peppers, has been changed to "spineless," which is the word used by most seedsmen.

In squashes the word "golden" as used in Golden Summer Crookneck, Mammoth Golden Summer Crookneck, Giant Golden Summer Crookneck, and Early Golden Summer Crookneck, has been changed to the more generally adopted word "yellow." In tomatoes One Hundred Day and Advancer have been changed to the more generally adopted names Hundred Day and Advance.

RULES FOR ENTERING.

The present list of varieties includes, it is believed, all the garden varieties of vegetables catalogued by seedsmen in the United States and Canada. The utmost endeavor has been made to secure every catalogue. After each variety name are given abbreviations of the names of the seedsmen who catalogue the variety. When in italics they indicate that the variety was catalogued by that seedsman in 1902 only. When all the names are in italics the variety is indicated as being a new introduction of 1902. Whenever similar names exist or synonyms are cited these also are given. By similar names are meant names resembling each other given by different seedsmen, whether to like or unlike varieties. In some cases such varieties are all dissimilar in type or essential characters. Most of them, however, are similar or identical in this regard and sometimes they are so in purity of stock also. The synonyms cited include only those given by seedsmen in their own catalogues, though some of them are undoubtedly incorrect; this is due usually to a local misunderstanding of the generally recognized type or to a misapplication of names rather than a lack of knowledge of the varieties themselves.

LIST OF ABBREVIATIONS OF NAMES OF SEEDSMEN.

The following are the abbreviations, alphabetically arranged, which have been adopted to designate the seedsmen referred to in this bulletin. The list includes, so far as is known, all the seedsmen of the United States and Canada who issued catalogues or price lists for the years 1901 and 1902.

Agn	H. C. & J. B. Agnew, Agnew, Cal.
AGT	A. G. Tillinghast, Laconner, Wash.
All	John H. Allan Seed Co., Three Mile Bay, N. Y.
Alr	Alneer Bros., Rockford, Ill.
Alx	Alexander Seed Co., Augusta, Ga.
Anb	E. Annabil, McPherson, Kans.
Ans	A. H. Ansley & Sons, Milo Center, N. Y.
Ar	L. E. Archias Seed Co., Carthage, Mo.
Bai	Bailey & Sons, Salt Lake City, Utah.
Bak	Baker Bros., Fort Worth, Tex.
Bdg	Alfred Bridgeman, New York, N. Y.
Bel	J. J. Bell, Deposit, N. Y.

Ber	A. A. Berry Seed Co., Clarinda, Iowa.
Bgg	B. L. Bragg Co., Springfield, Mass.
Bgs	Briggs Brothers & Co., Rochester, N. Y.
Bkt	W. C. Beckert, Allegheny, Pa.
Blg	F. W. Bolgiano, Washington, D. C.
Bng	William H. Brunning, Rahway, N. J.
Bou	William A. Bours & Co., Jacksonville, Fla.
Bow	E. J. Bowen, San Francisco, Cal.
Brb	E. W. Burbank Seed Co., Fryeburg, Me.
	Luther Burbank, Santa Rosa, Cal.=LBk
Brd	W. W. Barnard & Co., Chicago, Ill.
Bri	Wm. Brinker, Cleveland, Ohio.
Brk	Joseph Breck & Sons, Boston, Mass.
Brn	Alfred J. Brown Seed Co., Grand Rapids, Mich.
Brr	Fred P. Burr & Co., Middletown, Conn.
Brt	The W. E. Barrett Co., Providence, R. I.
Bru	John A. Bruce & Co., Hamilton, Canada.
Brw	E. E. Burwell, New Haven, Conn.
Btl	F. Barteldes & Co., Lawrence, Kans.
Buc	H. W. Buckbee, Rockford, Ill.
Bui	Robert Buist Co., Philadelphia, Pa.
Bur	W. Atlee Burpee & Co., Philadelphia, Pa.
CA	Curry-Arrington Co., Rome, Ga.
Cam	L. Cameron, Jacksonville, Fla.
C&B	Clucas & Boddington Co., New York, N. Y.
CCo	Cole Seed Co., Buckner, Mo.
CE	Chesmore-Eastlake Mercantile Co., St. Joseph, Mo.
CF	Comstock, Ferre & Co., Wethersfield, Conn.
Chl	John Lewis Childs, Floral Park, N. Y.
Chm	M. Cushman & Co., Rochester, N. Y.
C&J	Cadwell & Jones, Hartford, Conn.
Cle	Cleveland Seed Co., Cape Vincent, N. Y.
Cok	A. T. Cook, Hyde Park, N. Y.
Col	Cole's Seed Store, Pella, Iowa.
Cox	Cox Seed Co., San Francisco, Cal.
Crg	Craig Seed Co., Memphis, Tenn.
Crs	Crosman Bros., Rochester, N. Y.
CSC	C. S. Clark, Wakeman, Ohio.
	The Everett B. Clark Co., Milford, Conn.=EBC
Cur	Currie Bros., Milwaukee, Wis.
D&C	The Dingee & Conard Co., West Grove, Pa.
DD	Dickmann-Dusard Seed Co., St. Louis, Mo.
Del	Delano Seed Co., Lee Park, Nebr.
D&H	Darch & Hunter, London, Ontario, Canada.
Dlw	W. E. Dallwig, Milwaukee, Wis.
Drm	Drumm Seed and Floral Co., Fort Worth, Tex.
Drr	Henry A. Dreer, Philadelphia, Pa.
Drw	Oliver H. Drew, Hibernia, N. Y.
Dun	R. B. Dunning & Co., Bangor, Me.
Eas	Eastman Seed Co., East Sumner, Me.
EBC	The Everett B. Clark Co., Milford, Conn.
Ebe	F. H. Ebeling, Syracuse, N. Y.
Ebr	W. M. Eber & Son, Quincy, Ill.
Eic	Eichling Seed and Nursery Co., New Orleans, La.

Elt	Wm. Elliott & Sons, New York, N. Y.
Emr	Thos. W. Emerson Co., Boston, Mass.
Evr	J. A. Everitt, Indianapolis, Ind.
Ewg	Wm. Ewing & Co., Montreal, Canada.
	Robert Evans Seed Co., Hamilton, Canada.=RE.
Fax	M. B. Faxon, Boston, Mass.
Fer	D. M. Ferry & Co., Detroit, Mich.
Fld	Henry Field, Shenandoah, Iowa.
Fle	Fleming & Sons, Brandon, Manitoba, Canada.
Fmr	Farmer Seed Co., Faribault, Minn.
Fqr	R. & J. Farquhar & Co., Boston, Mass.
Frd	Ford Seed Co., Ravenna, Ohio.
Fst	H. G. Faust & Co., Philadelphia, Pa.
Gdn	Amzi Godden Co., Birmingham, Ala.
Ger	Germain Fruit Co., Los Angeles, Cal.
Gfg	The Griffing Bros. Co., Jacksonville, Fla.
Ggy	James J. H. Gregory & Son, Marblehead, Mass.
GH	The Goodwin-Harries Co., Chicago, Ill.
Gls	Heman Glass, Barnard's Rural Delivery, near Rochester, N. Y.
GN	The Great Northern Seed Co., Rockford, Ill.
Gng	Grainger Bros., Toronto, Canada.
Gra	Graham Bros., Ottawa, Canada.
Grn	W. H. Grenell, Pierrepont Manor, N. Y.
Grw	Griswold Seed Co., Lincoln, Nebr.
	Thomas Griswold & Co., S. Wethersfield, Conn.=TG.
Gry	Thomas J. Grey & Co., Boston, Mass.
G&T	Griffith & Turner Co., Baltimore, Md.
Ham	Harry N. Hammond Seed Co., Bay City, Mich.
Haw	Budd D. Hawkins, Reading, Vt.
Hbt	Thos. W. Hobart, South Sioux Falls, S. Dak.
H&C	Hoermann & Cleary Seed Co., Terre Haute, Ind.
Hde	David Hardie Seed Co., Dallas, Tex.
Hen	Peter Henderson & Co., New York, N. Y.
Hlm	H. L. Holmes, Harrisburg, Pa.
Hly	The Holloway Seed & Grain Co., Dallas, Tex.
Hme	John Hume, Port Hope, Ontario, Canada.
Hns	Haines Seed Co., Denver, Colo.
Hnt	Hunt Seed Co., Lewistown, Pa.
Hop	Carl S. Hopkins, Brattleboro, Vt.
H&P	Huntington & Page, Indianapolis, Ind.
HP	The Henry Philipps Seed and Implement Co., Toledo, Ohio.
Hrm	H. T. Harmon & Co., Portland, Me.
Hrn	The Harnden Seed Co., Kansas City, Mo.
Hrs	Joseph Harris Co., Coldwater, N. Y.
Hrv	Harvey Seed Co., Buffalo, N. Y.
Hse	H. F. House & Co., Hiram, Ohio.
Hst	H. G. Hastings & Co., Atlanta, Ga.
Iml	Jno. D. Imlay, Zanesville, Ohio.
Iow	Iowa Seed Co., Des Moines, Iowa.
Jac	Jacobs Pharmacy, Atlanta, Ga.
JCM	J. Charles McCullough, Cincinnati, Ohio.
Jer	The George W. P. Jerrard Co., Caribou, Me.
Jes	Jessamine Gardens, Jessamine, Fla.
JL	Livingston's Seed Store, Des Moines, Iowa.

J&M	Johnson & Musser Seed Co., Los Angeles, Cal.
JMM	J. M. McCullough's Sons, Cincinnati, Ohio.
JMP	J. M. Philips' Sons, Mercersburg, Pa.
Jns	L. F. Jones Seed Co., Grand Rapids, Mich.
Joo	C. H. Joosten, New York, N. Y.
J&S	Johnson & Stokes, Philadelphia, Pa.
	Mark W. Johnson Seed Co., Atlanta, Ga.=MWJ.
	R. H. Johnston, Victoria, British Columbia, Canada.=RHJ.
Kei	Keith & Co., Winnipeg, Manitoba, Canada.
Kel	The Kelly Co., Cleveland, Ohio.
Ken	A. C. Kendel, Cleveland, Ohio.
K&F	Kennedy & Farnham, Carrollton, Mo.
Kg	T. J. King Co., Richmond, Va.
Koe	W. H. Koerner, Milwaukee, Wis.
Kos	Theo. Koss, Milwaukee, Wis.
Kra	I. N. Kramer & Son, Cedar Rapids, Iowa.
K&W	Kendall & Whitney, Portland, Me.
Lam	Buell Lamberson's Sons, Portland, Oreg.
Lan	D. Landreth & Sons, Philadelphia, Pa.
LB	Lilly, Bogardus & Co., Seattle, Wash.
LBk	Luther Burbank, Santa Rosa, Cal.
Lea	Leavings Bros. Seed Co., Paris, Ill.
Lnr	S. F. Leonard, Chicago, Ill.
Liv	The Livingston Seed Co., Columbus, Ohio.
	Livingston's Seed Store, Des Moines, Iowa.=JL.
Loh	The Lohrman Seed Co., Detroit, Mich.
Lon	W. B. Longstreth, Gratiot, Ohio.
Man	Mann & Co., Cape Vincent, N. Y.
	P. Mann & Co., Washington, D. C.=PM.
Mas	Geo. H. Mass, Woodstock, Vt.
Mau	Wm. Henry Maule, Philadelphia, Pa.
May	L. L. May & Co., St. Paul, Minn.
McK	A. E. McKenzie & Co., Brandon, Manitoba, Canada.
McM	McMillan's Seed Store, Atlanta, Ga.
	J. Charles McCullough, Cincinnati, Ohio.=JCM.
	J. M. McCullough's Sons, Cincinnati, Ohio.=JMM.
Mel	The Geo. H. Mellen Co., Springfield, Ohio.
Mgd	Mangelesdorf Bros. Co., Atchison, Kans.
Mhl	Henry F. Michell, Philadelphia, Pa.
Mic	Michael's Seed Store, Sioux City, Iowa.
Min	P. B. Mingle & Co., Philadelphia, Pa.
Mls	F. B. Mills, Rose Hill, N. Y.
Mnd	W. A. Manda, South Orange, N. J.
Mns	J. Manns Co., Baltimore, Md.
Mrs	C. C. Morse & Co., Santa Clara, Cal.
M&S	Moore & Simon, Philadelphia, Pa.
MV	Missouri Valley Seed Co., St. Joseph, Mo.
MWJ	Mark W. Johnson Seed Co., Atlanta, Ga.
Mzy	Muzzy Bros., Paterson, N. J.
Neb	The Nebraska Seed Co., Omaha, Nebr.
Nef	Lincoln I. Neff, Pittsburg, Pa.
NI	Northern Indiana Seed Co., Valparaiso, Ind.
NK	Northrup, King & Co., Minneapolis, Minn.
Nol	J. F. Noll & Co., Newark, N. J.

Old	L. L. Olds, Clinton, Wis.
OV	Ohio Valley Seed Co., Evansville, Ind.
Pac	Pacific Seed Co., Sacramento, Cal.
Pg	The Page Seed Co., Greene, N. Y.
	The Henry Philipps Seed and Implement Co., Toledo, Ohio.=HP.
	J. M. Philips' Sons, Mercersburg, Pa.=JMP.
Pir	The Pierce Seed Co., Pueblo, Colo.
Pks	J. M. Perkins, Winnipeg, Manitoba, Canada.
PM	P. Mann & Co., Washington, D. C.
Pne	Pine Tree State Seed Co., Bath, Me.
Pnt	Plant Seed Co., St. Louis, Mo.
Poo	Poole's Seed Store, Tacoma, Wash.
Por	Portland Seed Co., Portland, Oreg.
Pot	Walter A. Potter & Co., Providence, R. I.
Pri	George H. Price, Albany, N. Y.
Prn	F. R. Pierson Co., Tarrytown-on-Hudson, N. Y.
Ptt	Frank S. Platt, New Haven, Conn.
Pug	Puget Sound Nursery and Seed Co., Seattle, Wash.
Qkr	Quaker City Seed Co., Philadelphia, Pa.
Raw	W. W. Rawson & Co., Boston, Mass.
Ric	Jerome B. Rice, Cambridge, N. Y.
RE	Robert Evans Seed Co., Hamilton, Canada.
Ree	C. A. Reeser Co., Urbana, Ohio.
Ren	Wm. Rennie, Toronto, Canada.
RHJ	R. H. Johnston, Victoria, B. C., Canada.
Rim	Horace Rimby, Collegeville, Pa.
Rob	J. C. Robinson, Waterloo, Nebr.
Roc	Rockford Seed Co., Rockford, Ill.
Rog	Rogers Bros., Chaumont, N. Y.
Roh	Waldo Rohnert, Sargent, Cal.
RP	Rush Park Seed Co., Independence, Iowa.
Rs	Ross Bros., Worcester, Mass.
Rt	The A. I. Root Co., Medina, Ohio.
Rtk	J. R. Ratekin & Sons, Shenandoah, Iowa.
Sal	John A. Salzer, La Crosse, Wis.
SB	Steele, Briggs Seed Co., Toronto, Canada.
S&B	Schmidt & Botley, Springfield, Ohio.
SC	Schisler-Corneli Seed Co., St. Louis, Mo.
S&F	Schlegel & Fottler, Boston, Mass.
S&H	The Storrs & Harrison Co., Painesville, Ohio.
Shm	R. H. Shumway, Rockford, Ill.
Shw	Otto Schwill & Co., Memphis, Tenn.
Sie	Geo. L. Siegel, Erie, Pa.
Sim	J. A. Simmers, Toronto, Canada.
S&O	Shugart & Ouren Seed Co., Council Bluffs, Iowa.
Sox	Sioux City Seed and Nursery Co., Sioux City, Iowa.
Spf	Springfield Seed Co., Springfield, Mo.
Sqr	Jas. M. Squier & Son, Lindsay, Ontario, Canada.
S&R	Savage & Reid, Salem, Oreg.
Stk	J. Steckler Seed Co., New Orleans, La.
Stw	Stewart's Seed Store, Omaha, Nebr.
S&W	Stumpp & Walter Co., New York, N. Y.
Tat	George Tait & Sons, Norfolk, Va.
TB	Thompson Bros., Muscatine, Iowa.

T&B	Trumbull & Beebe, San Francisco, Cal.
Tem	L. Templin & Sons, Calla, Ohio.
Tex	Texas Seed and Floral Co., Dallas, Tex.
TG	Thomas Griswold & Co., South Wethersfield, Conn.
Thb	William R. Thurber, Brooklyn, Conn.
Thm	T. H. Thompson Seed and Rice Milling Co., Houston, Tex.
Thr	J. M. Thorburn & Co., New York, N. Y.
Til	A. Tilton & Son, Cleveland, Ohio.
Tlh	Tillinghast Seed Co., La Plume, Pa.
	A. G. Tillinghast, Laconner, Wash. = AGT.
Tpk	Topeka Seed House, Topeka, Kans.
Trm	Trumbull & Co., Kansas City, Mo.
Vau	Vaughan's Seed Store, Chicago, Ill.
Vin	Sevin Vincent & Co., San Francisco, Cal.
Vk	James Vick's Sons, Rochester, N. Y.
Vl	The Vail Seed Co., Indianapolis, Ind.
Wat	George C. Watson, Philadelphia, Pa.
Wd	T. W. Wood & Sons, Richmond, Va.
W&D	Weeber & Don, New York, N. Y.
Wdr	S. D. Woodruff & Sons, Orange, Conn.
Wea	Geo. A. Weaver Co., Newport, R. I.
Web	Mel L. Webster, Independence, Iowa.
Wer	Wernich Seed Co., Milwaukee, Wis.
Wll	Oscar H. Will & Co., Bismarck, N. Dak.
Wlt	N. L. Willet Drug Co., Augusta, Ga.
WS	Wood, Stubbs & Co., Louisville, Ky.
Wyg	Adolphus Wysong, Lebanon, Ind.
Y&H	Young & Halstead, Troy, N. Y.
Yng	C. Young & Sons Co., St. Louis, Mo.

LIST OF VARIETIES.

ARTICHOKE.

Chinese. Drw.

Seedsmen's synonyms. *Vegetable White Balt.*, Drw. *Stachy's Affinis*, Drw.

Colossal. M&S.

Similar names. Sutton's White, Sutton's Colossal.

Early Campania. Del.

Early Purple. Thr. For similar names see *Purple Globe.*

Seedsmen's synonyms. *Violet*, Brk.

Early Purple Globe. Ewg. For similar names see *Purple Globe.*

French. Bdg MWJ. For similar names see *French Globe.*

Seedsmen's synonyms. *Green Globe*, Bdg.

French Globe. Ken Mnd Mv Mzy *Sox* Tat Thr.

Similar names. Large French Globe, French Green Globe, French, White French, Mammoth White French.

French Green Globe. *Hst* Hop Rce Shw.

Similar names. See *French Globe*, *Green Globe.*

Giant Green Globe. Raw Ren. For similar names see *Green Globe.*

Giant White. May. For similar names see *White.*

Globe. Chl Cur OV. For similar names see *Green Globe.*

Green Globe. Alx Brd Bdg Bru Crs D&H Del Emr RE Evr Ewg Fax GH Gra Hns Hrm RHJ Mau McM Mhl NK Pac *Pnt* Pri SC Sox T&B Vk *Wd.*

SIMILAR NAMES. Large Green Globe, Improved Large Green Globe, Large Globe, French Green Globe, Giant Green Globe, Globe.

SEEDSMEN'S SYNONYMS. *French*, Bdg.

Green Laon. Thr.

Green Paris. Thr. For similar names see *Paris.*

Improved Large Green Globe, Improved Large White Jerusalem. Entered as *Large Green Globe* and *Large White Jerusalem.*

Italian Purple. Thr. For similar names see *Purple Globe.*

Jerusalem. Alx Brd Btl Brk Bdg Bru Brr Cam C&B Cur CA D&H Del Drr Drm Dun Eic Elt RE Fqr Fst Frd Gdn Gng Gry G&T Grw Hde Hrm Hrn Hst Hen Hly H&P Jac MWJ Ken Kg Lan Lnr LB Liv Mnd Mau JMM McK McM Mhl MV M&S Mzy Neb Nol Pac Pnt Ptt Raw Ren SC S&F Shw Sim *Sox* Spf Stk SB Tex Thm Thr T&B Vau Vk Vin Wea W&D Wlt Wd WS Wyg.

SIMILAR NAMES. Large Jerusalem, Improved Large White Jerusalem, Red Jerusalem.

SEEDSMEN'S SYNONYMS. *Giant White French*, Frd.

Large Flat Brittany. Thr.

Large French Globe. Ptt. For similar names see *French Globe.*

Large Globe. Brn Buc C&B *Fqr* Fer Lan Lea Lnr LB Liv JMM Pks SB W&D WS.

SIMILAR NAMES. See *Green Globe.*

SEEDSMEN'S SYNONYMS. *Paris,* Fer Liv.

Large Green Globe. Bai Bkt Bow Brk Bui Bur Cam Cle Cox Cur Drr Eic Elt Fmr Fqr Fst Frd Ger Gry G&T Grw Hde Hrn Hlm Iow J&M J&S Kei Lam May McK M&S Neb Nef Nol OV HP Pnt Por Pug Ree Ren S&R Sim Stk Tex Thm Tpk Vl Vin Wea Wer.

SIMILAR NAMES. See *Green Globe.*

Large Jerusalem. NK. For similar names see *Jerusalem.*

Large Paris. Mnd Vin. For similar names see *Paris.*

Large White Jerusalem. Ar. For similar names see *Jerusalem.*

Le Normand's Mammoth. RE.

Mammoth White. Del. For similar names see *White.*

Mammoth White French. Eic Evr GH Ham Kos.

SIMILAR NAMES. See *French Globe.*

Paris. Buc *Fqr* Fer Liv.

SIMILAR NAMES. Large Paris, Green Paris.

SEEDSMEN'S SYNONYMS. *Large Globe,* Fer Liv.

Purple Globe. Gra.

SIMILAR NAMES. Early Purple Globe, Early Purple, Italian Purple.

Red Jerusalem. S&R. For similar names see *Jerusalem.*

Sutton's Colossal. Entered as *Colossal.*

Sutton's White. Ren. For similar names see *Sutton's Colossal, White.*

Violet. Brk Thr.

SEEDSMEN'S SYNONYMS. *Early Purple,* Brk.

White. S&R.

SIMILAR NAMES. Sutton's White, Giant White, Mammoth White.

White French. *Eic* H&P Lam WS Wd. For similar names see *French Globe.*

ASPARAGUS.

Argenteuil. Vin.

SIMILAR NAMES. Giant Argenteuil, Early Purple Argenteuil.

Barr's Mammoth. Alr Bai Bkt Bel Ber Bgs Bri Buc Bui Bur CE CF Crs Cur Del D&C Drr Ebe Ebr RE *Err* Fst Fle Frd Gls GH G&T Grw Ham Hde Hrm Hbt *H&C* Hlm Hse Iml Ken K&F Lnr Liv Mnd May JMM Mic Mhl Mls MV Nef NK Pac Pg HP JMP Ptt Por Pri Pug Raw Rce Roc Rs Sal S&R Shm Sox Tat Tem Tex Thr Til Vau Wdr Yng.

Similar names. Barr's Philadelphia Mammoth, Mammoth, Conover's Mammoth, Cox's California Mammoth, Maule's Mammoth, Paris Mammoth, Starkey's Early Prolific Mammoth, Vick's Mammoth.

Barr's Philadelphia Mammoth. TG H&C J&S *Mau* M&S Nol.

Similar names. See *Barr's Mammoth.*

Berliner Freude. Sal.

Bonvallet's Giant. Fmr. Vau.

California Large White. Bel.

Charleston. Tat Wlt.

Seedsmen's synonyms. *French,* Tat. *Palmetto,* Tat.

Colossal. Ar Brt Bkt Bow Bri C&B Cur DD Dun Ebe Ebr G&T Hrv Hen Hly JCM JMM Lan Mnd Mns JCM McM Mzy Nef Prn Poo Ree SB Stw Tex Thr Thb Til W&D.

Similar names. See *Conover's Colossal.*

Columbian. Drw Mzy WS. For similar names see *Columbian Mammoth White.*

Columbian Mammoth White. Alr Anb Ar Bai Bak Brd Btl Bkt *Bel* Ber Blg Bow Bgs Bri Bru Buc Bur Brr *CE* Col Cox Crs Cur Dlw D&H Del DD Drr Drw Ebr Eic Elt *RE* Evr Ewg Fmr Fqr Fer Fld Fle Ger Gls Gdn GH Gra Ggy Grw Hns Hrn Hrs Haw Hbt Hlm Hop Hse Iml Iow J&M J&S Kg Kos Kra Lam Lnr LB Liv JL Mau May JMM McK Mhl MV M&S Neb Nef Nol NK Pg HP Pir Prn Pnt Ptt Por Pri Qkr Ren Rce Roc Rs RP Sal S&R SC S&F *Shw* Shm Sim Sox Spf Stk SB S&H S&W Tat Tem Tex TB *Thm* AGT Thr Til Trm Vl Vau Vk Wea Wll WS Y&H.

Similar names. Mammoth White, Columbia White, Columbian, Hammond's Mammoth White.

Columbian White. Col MWJ Raw Shm.

Similar names. See *Columbian Mammoth White.*.

Conover. Sal. For similar names see *Conover's Colossal.*

Conover's Colossal. Alx Alr Anb Ar Bai Bak Brd Bre Btl Bel Ber Blg Bgg Brk Bdg Bgs Brn Bru Buc Bui Bur Brr Cam CE Cle CF Cox Crs CA DD Del Drw *D&H* Drr Drw Drm Eas Ebe Eic Elt Emr RE Evr Ewg Fmr Fst Fax Fer Fld Fle Fqr Frd Ger Gls Gdn GH Gng Gls Gra Ggy Gry G&T TG Hns Ham Hde Hrm Hrn Hrs Hlm Hop H&P Iow MWJ J&M J&S Jns Kei K&W Ken Kg Koe Kos Kra Lam Lea Lnr LB, Liv JL Loh Mgd Man PM Mas Mau May JMM McK Mhl Mls Min MV M&S Mzy Neb Nef Nol NK Old OV Pac Pg Pks HP JMP Pir Pnt Ptt Por Pot Pri Qkr Raw Ren Rce Roc Rs RP Sal S&R SC S&F Shw S&O Shm Sim Sox Spf Stk S&H S&W Tat Tem TB Thm AGT Til Tpk Trm T&B Vl Vau Vk Vin Wea Web W&D Wer Wll Wd Wdr WS Yng Y&H.

Similar names. Conover, Colossal, Conover's Palmetto, Conover's Giant, Conover's Mammoth.

Seedsmens synonyms. *Early Purple Argenteuil,* Bru.

Conover's Giant. RHJ. For similar names see *Conover's Colossal, Giant.*

Conover's Mammoth. Mic.

Similar names. See *Conover's Colossal, Barr's Mammoth.*

Cox's California Mammoth. Cox. For similar names see *Barr's Mammoth.*

Defiance. Nef.

Similar names. Smally's Defiance.

Donald's Elmira. *Bel* Bri Buc Bur Brw C&J D&H Del Drr Frd Hbt Hlm J&S Liv M&S Nol Pri Qkr Roc Rs Tat *Thr.*

Dreer's Eclipse. Entered as *Eclipse.*

Early Purple Argenteuil. Bru. For similar names see *Argenteuil.*

Seedsmen's synonyms. *Conover's Colossal,* Bru.

Eclipse. Drr Mhl *Thr.*

Similar names. Dreer's Eclipse.

French. Tat Wlt.

Similar names. Giant White French.

Seedsmen's synonyms. *Charleston,* Tat. *Palmetto,* Tat.

Giant. Cox Shm Tpk.

Similar names. Conover's Giant, Moore's Giant, Large Giant, Southern Giant.

Giant Argenteuil. Alx Cur *Mau* Mnd *MWJ* Wer Wlt Wd.

Similar names. See *Argenteuil.*

Giant Palmetto. Ham Sal. For similar names see *Palmetto.*

Giant Purple Top. Ewg.

Similar names. Moore's Giant Purple Top, Large Purple Top.

Giant Snow Cap. *D&H* Ewg. For similar names see *Snow-head.*

Giant White French. For similar names see *French.*

Hub. Brk Fqr.

Ivory. *Tem.*

Large Giant. Sim. For similar names see *Giant.*

Large Purple Top. Pac. For similar names see *Giant Purple Top.*

Hammond's Mammoth White. Ham.

Similar names. See *Columbian Mammoth White.*

Henderson's Palmetto. Entered as *Palmetto.*

Mammoth. Chl H&P MWJ. For similar names see *Barr's Mammoth.*

Mammoth White. Brk G&T. For similar names see *Columbian Mammoth White.*

Maule's Mammoth. Mau. For similar names see *Barr's Mammoth.*

Moore's Cross Bred. Drm Ggy.

Similar names. Moore's Giant Cross Bred, Moore's Giant Purple Top, Moore's Giant.

Moore's Giant. Gry Raw. For similar names see *Giant, Moore's Cross Bred.*

Moore's Giant Cross Bred. Fqr. For similar names see *Moore's Cross Bred.*

Moore's Giant Purple Top. Brk S&F.

Similar names. See *Giant Purple Top, Moore's Cross Bred.*

Palmetto. Alx Alr Anb Ar Bai Brd Brt Btl Bkt Bel Blg Bow *Bgg* Brk Bdg Bgs Bri Bru Buc Bui Bur Brr Brw C&J Cam CE Cle C&B Col CF Cok Cox Crs Cur CA Dlw D&H Del DD Drr Eas Ebe Ebr Elt Eic Emr RE Evr Ewg Fmr Fqr Frd Ger Gdn GH Gra Gng Ggy Gry Gfg G&T Grw TG Hns Hde Hen Hrm Hrn Hrs Hrv Hst Hbt Hly Hop H&P Iml Iow MWJ RHJ J&M J&S Jns Kei Ken K&F Kg Kos Kra Lan Lnr LB Liv JL Loh Mnd Man PM Mns Mas Mau May JCM JMM *McK* McM Mel Mhl Mls MV M&S Mzy Neb Nol NK Pac Pks HP Prn Pnt Ptt Poo Por Pot Pri Qkr Raw Ree Ren Rce Roc Rt Rs S&R SC S&F Shw S&O Shm Sim *Sox* Spf Stk SB Stw S&H S&W Tat Thr Tex TB Thm AGT Tem Til Trm T&B Vl Vau Vk Vin Wea W&D Wer Wlt Wd Wdr WS Yng Y&H.

Similar names. Conover's Palmetto, Henderson's Palmetto, Giant Palmetto.

Seedsmen's synonyms. *Charleston,* Tat. *French,* Tat.

Paris Mammoth. Pug: For similar names see *Barr's Mammoth.*

Quality. LBk.

Smally's Defiance. Entered as *Defiance.*

Snowhead. Ger.

Similar names. Giant Snow Cap.

Southern Giant. Shm. For similar names see *Giant.*

Starkey's Early Prolific Mammoth. M&S.

Similar names. See *Barr's Mammoth.*

Vick's Mammoth. Vk. For similar names see *Barr's Mammoth.*

BEAN (BUSH LIMA BEAN).

Burpee's Bush. Alr Anb Ar Bai Brd Brt Btl Bel Ber *Blg* Bow Bgg Brk Bdg Bri Brn Bru Bng Buc Bui Brb Bur Brr Brw C&J Cam CE Chl Cle C&B Col CF Crs Cur CA Chm Dlw D&H Del DD Drr Drw Drm Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fax *Fld* Frd Ger Gls Gdn GH Gra GN Ggy Gry *Gfg* G&T Grw TG Hns Ham Hrm Hen Hrs Hrv Hst Hen Hbt H&C Hlm Hop Hse Hnt H&P Iow Jac MWJ J&M J&S Jns Kel K&W Ken K&F Kg Kos Kra Lam Lan Lnr LB Liv JL Loh *Lon* Mnd Mgd Man PM Mns Mas Mau May JCM JMM *McK* McM Mic Mhl Min Mls MV M&S Mzy Neb Nef Nol NK Old Pac Pg HP JMP Pir Pnt Prn Ptt Por Pot Pri Pug Qkr *Rtk* Raw Ree Ren Rce Rim Roc Rt Rs RP Sal S&R SC S&F S&B S&O Sie Sim Sox Stk SB Stw S&H S&W Tem TB Thm Thr Thb *Tlh* Til Tpk Trm T&B Vl Vau Vk Wat Wea Web W&D Wer Wll Wd Wdr WS Wyg Yng Y&H.

Similar names. Burpee's Large Bush, Burpee's Willow Leaf Bush, Burpee's Quarter-Century.

Seedsmen's synonyms. *Dwarf Large White*, J&S.

Burpee's Large Bush. Alx Bkt Gfg Hde Pnt Spf Tat.

Similar names. See *Burpee's Bush*.

Burpee's Quarter-Century. Entered as *Quarter Century*.

Burpee's Willow Leaf. Entered as *Willow Leaf*.

Calico. *Cam.*

Seedsmen's synonyms. *Southern*, Cam.

Cox's Bush. Cox.

Cox's Southern Bush. Cox.

Dreer's Bush. Alx Alr Bai Brd Brt Bkt Brk Bdg Bgs Bri Bng Bur *CE* C&B Crs Drr *Emr* Evr Fqr Fst Frd *Gdn* Ggy Gry G&T TG Hen H&C *Hlm* Hop *MWJ* J&S Ken Kra Lam *Lan* Lnr Liv JL Mnd Mau *JMM* McM Mhl Min Mns Nol M&S Neb NK Pac Pg Prn Ptt Raw Rce Rs S&F S&O Shm *S&W* Tat Tem Thm *Tpk* Vl Vk Wat Wea W&D Wdr.

Similar names. Dreer's Large Bush, Dreer's Wonder Bush.

Seedsmen's synonyms. *Kumerle*, Brt Bkt Bur Fqr Fer J&S, etc. *Thorburn*, Kra Mau Vk.

Dreer's Large Bush. Blg Nol. For similar names see *Dreer's Bush*.

Dreer's Wonder. *Bur* Drr Liv Mns. For similar names see *Dreer's Bush*.

Dwarf Carolina. Lan.

Seedsmen's synonyms. *Dwarf Lima*, Lan.

Dwarf Large White. Fer Iml J&S.

Similar names. Dwarf White, Large Bush.

Seedsmen's synonyms. *Burpee's Bush*, J&S.

Dwarf Lima. Brb Crg Fer Haw Lea Mel OV Vk Yng.

Seedsmen's synonyms. *Dwarf Carolina*, Lan.

Dwarf Sieva. Fer J&S Mnd MV NK.

Seedsmen's synonyms. *Henderson's Bush*, Fer J&S Mnd MV NK HP Thr.

Dwarf White. Mzy. For similar names see *Dwarf Large White*.

Extra Early Bush. M&S.

Henderson's Bush. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bel Ber *Blg* Bow Bgg Brk Bdg Bgs Brn Bru Bng Buc Bui Brb *Bur* Brr Cam CE C&B Col CF Crs Cur *D&H* Del DD D&C Drr Drm Ebr Eic Elt Emr Evr Fmr Fqr Fst *Fld* Frd Gls Gdn GH Ggy Gry Gfg G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hst Hen Hbt H&C Hlm Hop Hse H&P Iow Jac MWJ J&M J&S Kg Kos Kra Lam Lan Lnr LB Liv JL Loh Lon Mnd Mgd Mas Mau JCM May JMM *McK* McM Mhl Mls MV M&S Neb Nol NK Old OV Pac HP JMP Prn Pne Pnt Ptt Por Pot Pri Rtk Raw Ree Ren Rce Roc *Rt* Rs RP Sal S&R SC S&F Shw S&O Shm Sim Sox Spf Stk Stw

S&H S&W *Tat* Tem Tex *TB* Thm Thr Thb *Tpk* Trm T&B Vl Vau Vin Wea Web W&D Wer Wlt WS Wyg Y&H.

Similar names. Henderson's Improved Bush, Henderson's Small Dwarf.

Seedsmen's synonyms. *Dwarf Sieva*, Fer J&S Mnd MV NK HP Thr.

Henderson's Improved Bush. Entered as *Henderson's Bush.*

Henderson's Small Dwarf. Alx. For similar names see *Henderson's Bush.*

Hoermann & Cleary's Wax Lima. H&C.

Improved Bush. Vk.

Jackson Wonder. Ber *Brn* Buc *Bur* Cam *CE* Cok Cur Del Frd Hst McM Mic MV Pg Rce Roc Rog S&F *Shw* Shm Sox Tem Thm.

Similar names. Mill's Wonder, Dreer's Wonder, New Wonder.

Kumerle's Bush. Brt Bkt Bur Fqr Fer Frd J&S Liv M&S NK Pg Sie Tat Thm Wdr.

Seedsmen's synonyms. *Dreer's Bush*, Brt Bkt Bur Fqr Fer J&S, etc. *Thorburn*, Kra Liv NK Vk.

Large Bush. Blg. For similar names see *Dwarf Large White.*

Mexican Lima. Pir.

Mill's Wonder. Mls. For similar names see *Jackson Wonder.*

Moore & Simon's Improved Large Early. Entered as *Moore & Simon's Large Early.*

Moore & Simon's Large Early. M&S.

Similar names. Moore & Simon's Improved Large Early.

Potato Bush. Tat.

Quarter-Century. Bur *Liv.*

Small Bush. Tat Vk.

Southern *Cam Cox.*

Seedsmen's synonyms. *Southern*, Cam.

Thorburn's Bush. *CE* CF DD Ebr Elt *Hst* Liv Mau McM NK Rce *S&W* Thm *Thr* Wdr.

Seedsmen's synonyms. *Dreer's* Kra Mau Vk. *Kumerle*, Kra Liv NK Vk.

Washington Market. Lnr.

Wilkie's Perfection Prize. M&S.

Willow Leaf. Bur Sim.

Wonder. *Fer Hen* J&S *Spf.* For similar names see *Jackson Wonder.*

Wood's Improved. Ebr Rt.

Similar names. Wood's Prolific.

Wood's Prolific. Bng Bur Ebr Hbt Rce *Shw* Vk Wd WS.

Similar names. See *Wood's Improved.*

BEAN (GREEN-PODDED BUSH BEAN).

Alexander's Stringless Green Pod. Entered as *Stringless Green Pod.*

Bacon. Wd.

Similar names. Wood's Bacon.

Banner Leafless. Ham.

Similar names. Hammond's Banner Leafless.

Best of All. Alx All Ans Bkt Bel Ber Brk Bgs Bri Brn Buc Bui Bur Brw Cam *CE* Cle Col CA Del DD Eic Evr Fmr Fst Fer Frd Gdn GH Grn Gfg G&T TG Hrn Hbt *Hly* Hlm Jac MWJ J&S *Kei* Kg Lnr *LB* Liv Mnd Mau May JCM JMM McM Mel Mhl Liv MV M&S Nef NK Pg JMP Pnt Qkr Rce Roc Rog Rs Sal Shm Sox Spf Stk S&W Tem Thm Thr *Web* Wer Wd WS Yng.

Best of All Early Market. *Nol* M&S.

Black Morrow. Sal.

Black Turtle Soup. Drr JCM. For similar names see *Turtle Soup.*

Black Valentine. Hen S&W *W&D.* For similar names see *Red Valentine.*

Blue Podded Butter. Bur Hbt Rog S&F.

Boston. Hme *Shw* Y&H. For similar names see *Boston Pea.*

Seedsmen's synonyms. *Goddard*, Y&H. *California Yellow*, Hme.

Boston Favorite. All Brt *Bgg* Brn Bur Brr C&J *CE* CF Emr Ewg Fqr Fax Frd Grn Gry *Hrs* Hse *Lnr Mns* MV NK HP Ptt Pot Qkr Raw Rce Rog Rs *Sox* Wea Wdr.

Similar names. See *Boston Pea.*

Seedsmen's synonyms. *Goddard*, Bur Fqr Ggy HP Raw Rce, etc. *Improved Goddard*, Rs. *Improved Yellow Eye*, Ewg. *Large Goddard*, Emr Ptt. *Red Podded Dwarf Horticultural*, Emr.

Boston Improved Round Pod Extra Early Snap Short. Entered as *Boston Round Pod Extra Early Snap Short.*

Boston Marrow. Hrs. For similar names see *Boston Pea. White Marrow.*

Boston Pea. *Brn* Del Drr Fmr Hme Kos Kra Liv May M&S Mns Nol HP Y&H.

Similar names. Pea, White Pea, Boston Small Pea, Boston Pea, Early Boston Navy, Boston Favorite, Boston Marrow, Boston Yellow Eye, Boston Improved Round Pod Extra Early Snap Short.

Seedsmen's synonyms. *Improved Navy*, Fmr Kra Liv Mns. *Navy*, Drr Nol. *Snowflake*, M&S. *White Pea*, May HP.

Boston Round Pod Extra Early Snap Short. M&S.

Similar names. See *Boston Pea.*

Boston Small Pea. Brd Bgs Bur *CE* C&B Crs Cur DD Hrs Hen Lnr MV Rce Sox *Tem.* For similar names see *Boston Pea.*

Boston Yellow Eye. Ebe. For similar names see *Boston Pea, Yellow Eye.*

Bountiful. Bkt Drw *Ggy* Hen *Lnr Vau.*

Breck's String and Shell. Brk.

Broad Windsor. Btl Bow Brk Bdg Cle Cox Crs Cur Dlw D&H DD Drr Ebe Ebr Eic Emr RE Fmr Fqr Fer Fle Ger Gra Gry G&T Hns RHJ Kei K&W Ken Kos Lam Lnr *Loh* Mhl Mzy NK Pac Pir Pks Ptt Poo Por Pri Pug Raw Rce Ren Sal S&R SC S&F Sim Stk SB S&W Thr Vau Vin Wea W&D Wer.

Similar names. English Broad Windsor, Green Windsor.

Seedsmen's synonyms. *Broad*, Fer. *English*, NK. *English Broad*, Lam. *English Dwarf*, Fer.

Brown. NK. For similar names see *Brown Six Weeks.*

Seedsmen's synonyms. *Swedish*, NK.

Brown Six Weeks. Brt Bkt Bri Wd WS.

Similar names. Early Brown, Brown. See also *Yellow Six Weeks.*

Seedsmen's synonyms. *Early Mohawk*, Sox WS. *Mohawk*, Bkt Brt.

Brown Swedish. *Brn.*

Brown Speckled Valentine. Btl Bkt. For similar names see *Red Valentine.*

Seedsmen's synonyms. *One Thousand to One*, Lan. *Refugee*, Bkt Btl Dlw Lan.

Brown Valentine. G&T. For similar names see *Red Valentine.*

Seedsmen's synonyms. *Early Valentine*, G&T.

Buckbee's Early Wonder. Entered as *Early Wonder.*

Buist's Early Lightning Valentine. Entered as *Early Lightning Valentine.*

Burlingame Medium. Ans Brk Cur Fmr Frd Hen J&S Mau.

Similar names. See *White Medium.*

Burpee's Stringless Green Pod. Entered as *Stringless Green Pod.*

Byer. CE Chl *CF* Thr.

Cala. JL.

Seedsmen's synonyms. *Mexican Tree*, JL.

California Branch. Ar H&P Iow *Vl.* For similar names see *California Tree.*

Seedsmen's synonyms. *Tree*, H&P. *Prolific Tree*, Ar Iow.

California Pea. Gra Ren. For similar names see *California Tree.*

California Tree. Til *Vl* Web Wyg.

Similar names. California White Tree, California Branch, California Yellow, California Wonder, California Pea. See also *Prolific Tree.*

Seedsmen's synonyms. *Prolific Tree,* Wyg.

California White Tree. CE GH *May.*

Similar names. See *California Tree, Prolific Tree.*

California Wonder. Fmr NK.

Similar names. See *California Tree, Canadian Wonder.*

Seedsmen's synonyms. *Improved Tree,* NK.

California Yellow. Hme. For similar names see *California Tree.*

Seedsmen's synonyms. *Boston,* Hme.

Canadian Universal. D&H.

Canadian Wonder. All Bai Bdg Bri Cox Dlw Fle Ger Gra Hme RHJ J&M Ken NK *Pac* HP Por Qkr *Ree* Rog S&R Sim Til T&B Vin Wer.

Similar names. Simmer's Canadian Wonder, English Wonder, California Wonder, Newington Wonder, Early Wonder, Buckbee's Early Wonder, White Wonder, Salzer's White Wonder, Little Wonder Mary, Johnson's Wonderful.

Carmine Dwarf Horticultural. GH. For similar names see *Dwarf Horticultural.*

Chilian. Brr Ptt.

Seedsmen's synonyms. *Red Kidney,* Brr Ptt.

China. Bru Fqr Grn Pri Ren. For similar names see *China Red Eye.*

Seedsmen's synonyms. *Red Eye,* Pri.

China Red Eye. All *Bru* Bur Cle Dlw Ebe Hlm Lea *Lnr* May *McK* McM NK Pac *Put* Qkr Vin.

Similar names. Early China Red Eye, Early China, China, Red Eye.

Chocolate. Thr.

Cleveland's Improved Extra Early Refugee, Cleveland's Improved Red Valentine, Cleveland's Improved Valentine. Entered as *Extra Early Refugee, Red Valentine,* and *Valentine.*

Coffee. Crs.

Colossal Stringless Green Pod. Sal. For similar names see *Stringless Green Pod.*

Cornhill. Btl.

Cox's Improved Red Valentine. Entered as *Red Valentine.*

Craig's Stringless Wonder. Entered as *Stringless Wonder.*

Cream Valentine. Bkt Hen Kei. For similar names see *Red Valentine.*

Crimson Beauty. Frd Rs.

Day's Improved Leafless Medium, Day's Leafless Medium, Entered as *Leafless Medium.*

Dewey Navy. Wll. For similar names see *Navy.*

Dun Color. Ewg.

Dwarf Black Green Podded. AGT.

Dwarf Cherry. PM Mns.

Seedsmen's synonyms. *Dwarf Horticultural,* Blg PM Mns.

Dwarf Cranberry. Bel Brr Fqr Haw Hse NI Roc *Wea* Wer Y&H.

Similar names. Red Dwarf Cranberry, Yellow Dwarf Cranberry, White Dwarf Cranberry, Large White Dwarf Cranberry.

Seedsmen's synonyms. *Dwarf Horticultural,* Bel Brr Hse Roc Wer Y&H. *Quail Head,* Brr.

Dwarf Dutch Case Knife. *Jns.*

Seedsmen's synonyms. *Emperor William,* Jns.

Dwarf French. RHJ. For similar names see *French Kidney.*

Dwarf Horticultural. All Anb Ans Bai Brd Brt Btl Bkt Bel Blg *Bow Bgg* Brk Bdg Bgs Bri Brn Buc Brb Bur Brr Brw C&J Cam *CE* Cle C&B CF Crs Cur Dun Eas Ebe Elt Emr Ewg Fmr Fqr Fax Fer Frd *Ger* Gdn GH Grn Gry G&T TG Hns

Hrm Hrn *Hrs* Haw Hen H&C *Hly Hlm* Hop Hse H&P J&M K&W Kra Lam Lan Lnr *LB* Liv Man Mnd PM Mas Mau May JCM JMM Mns MV NK OV Pg HP JMP Prn Pne *Pnt* Ptt Poo Por Pot Pri Pug Qkr Raw Ree Roc Rs RP S&R S&F S&O Shm Sox Spf Stw S&W Thm Thr Thb *Tpk* Trm *Vl* Vau Vk Wea Web W&D Wer Wdr WS Y&H.

Similar names. Marblehead Dwarf Horticultural, Early Marblehead Dwarf Horticultural, Farquhar's Dwarf Horticultural, Improved Dwarf Horticultural, Ruby Dwarf Horticultural, Carmine Dwarf Horticultural, Early Carmine Dwarf Horticultural.

Seedsmen's synonyms. *Dwarf Cherry*, Blg PM Mns. *Dwarf Cranberry*, Bel Brr Hse Roc Wer Y&H. *Dwarf Wren's Egg*, Lan. *Quail Head*, Brr. *Speckled Cranberry*, Rs.

Dwarf Triumph. D&H.

Dwarf White Kidney. Hme MWJ RP. For similar names see *White Kidney.*

Dwarf White Navy. Fer Gdn Loh Lon Til. For similar names see *Navy.*

Seedsmen's synonyms. *Early Marrow Pea*, Fer Loh.

Dwarf Wren's Egg. Lan.

Seedsmen's synonyms. *Dwarf Horticultural*, Lan.

Earliest Market. G&T. For similar names see *First in the Market.*

Early Aroostook. Jer.

Early Boston Navy. McK. For similar names see *Navy, Boston Pea.*

Early Brown. Lan. For similar names see *Brown Six Weeks.*

Seedsmen's synonyms. *Early Mohawk*, Wd. *Mohawk*, Dlw Law.

Early Brown Mohawk. Hde K&F Pnt SC. For similar names see *Mohawk.*

Early Carmine Dwarf Horticultural. Ggy Hrm.

Similar names. See *Dwarf Horticultural.*

Early China. Bai Brk Bdg *Brr* Brw C&J CF Elt Emr RE Ewg Gra Gry McK Mzy Ptt S&F Sim SB S&W Thr W&D Wer.

Similar names. See *China Red Eye.*

Seedsmen's synonyms. *Red*, Ggy. *Early China Red Eye*, Ptt.

Early China Red Eye. Brd *Bow* Bgg Bgs Bng Buc Bui *Bur CE* Cox Crs TG Haw *Hlm* J&S Kei Kos Lam LB *May* Mls Min MV OV *Pac* Pks JMP Pug Raw Ree Roc Rog Rs RP Sox Tpk T&B Wdr.

Similar names. See *China Red Eye.*

Seedsmen's synonyms. *Early Dwarf China*, Ptt.

Early Emperor William. Crs. For similar names see *Emperor William.*

Early Horse Pea. Hnt. For similar names see *Horse.*

Early Lightning Valentine. Bui Evr Shw.

Similar names. See *Red Valentine, Lightning.*

Early Long Pod. Ger Ken Pac SC W&D.

Similar names. Wait's Improved Early Long Pod, Sword Long Pod, Negro Long Pod, Green Long Pod, Wait's Early Long Pod.

Early Long Yellow Six Weeks. Ar Bow Buc Bui Brb *Bur* Cox Crs Dlw D&H Del Drm Ebe Fst Fax Gdn TG Jac Kei K&W Lan JL May JCM McM Mhl Min Mls NK JMP Pir Pks Pnt Ptt Por Pug Qkr Raw Ree Rs S&R SC Shm Spf SB S&W Vl *Web* Wer Wdr Yng.

Similar names. See *Long Yellow Six Weeks.*

Early Marblehead Dwarf Horticultural. Fer Ggy Pne.

Similar names. See *Dwarf Horticultural.*

Early Marrow. Ewg. For similar names see *White Marrow.*

Early Marrow Pea. Fer Loh. For similar names see *White Marrow.*

Seedsmen's synonyms. *Dwarf White Navy*, Fer Loh.

Early Mazagan. D&H May Mzy Sim S&W Thr W&D.

Similar names. Mazagan, Green Mazagan.

Early Mohawk. Alx All Alr Anb Ar Brd Btl Bel Ber *Blg* Bou Bow Brk Bdg Bgs Brn Bng Buc Bur Brr *Cam* CE C&B CF Cox Crs Cur CA Del DD Drr Drm *Eas* Ebr Eic Elt Emr Evr Ewg Fqr Fst Fax Fer GH Gng Gry Gfg G&T Grw TG Hns Hrm Hrn Hrs Hrv Hst Haw Hen H&C *Hly* Hlm Hnt H&P Iml Iow Jac J&M J&S K&W Kra Lnr LB Liv JL Man Mnd Mgd Mau JCM JMM Mhl Mls Min MV M&S Mzy NK OV Old Pac HP JMP Prn *Pnt* Por Pot Pri Qkr Raw Rce Roc Rog RP S&R S&F Shw S&O Shm *Sox* Spf SB Stw S&H S&W Tat *Tem* Tex Thm Thr Til *Tpk* Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wer Wd Wdr WS Wyg Yng Y&H.

Similar names. See *Mohawk.*

Seedsmen's synonyms. *Brown Six Weeks,* Sox WS. *Early Brown Six Weeks,* Wd.

Early Mohawk Six Weeks. Bui Crg *Eic* Gdn Kg Stk Wlt.

Similar names. See *Mohawk, Yellow Six Weeks.*

Early Prolific Broad. *Iow.*

Early Red Lightning Valentine. Lon.

Similar names. See *Red Valentine, Lightning.*

Early Red Speckled Valentine. Gdn Jac. For similar names see *Red Valentine.*

Early Red Valentine. Ar Brt Btl Blg Bou Brk *CE* C&B Col Crs Chm Del Drw Evr Ewg Ger Gra Gng Gfg G&T Hns Hrm Hen Hop Hme H&P Jer Kos Lam LB PM Mns Min JCM Mel *M&S Pac* Poo Pot Raw Rce RP Shw Tem Thb Til Tpk Vin Web W&D Wdr WS Yng Y&H.

Similar names. See *Red Valentine.*

Early Refugee. Bou Bui Crs RE Gdn G&T Grw Iow Jac J&M NI Pac Raw Stw Thm Web.

Similar names. See *Refugee.*

Seedsmen's synonyms. *One Thousand to One,* Bui Gdn Grw Iow Raw Stw. *Brown Valentine,* G&T.

Early Round Pod Red Valentine. Bgs Mau *Bur Gls.*

Similar names. See *Red Valentine.*

Early Round Pod Speckled Valentine. Drm.

Similar names. See *Red Valentine.*

Early Round Pod Valentine. TG Iml Sox Trm.

Similar names. See *Red Valentine.*

Early Round Yellow Six Weeks. Bow Buc *Bur* Grw *LB JCM* Mic MV Roc Rog *Sox* Tpk Vau *Web* Wer.

Similar names. See *Long Yellow Six Weeks.*

Early Royal Dwarf Kidney. Roc. For similar names see *Royal Dwarf.*

Early Royal Dwarf White Kidney. Buc. For similar names see *Royal Dwarf.*

Early Valentine. Ber Bui Brw Eas Ebr RE Fqr Fax Hrv Hnt Iow *RHJ* K&W Kra Mzy Pac Prn Pne Rtk S&F Shm.

Similar names. See *Red Valentine.*

Early Warick. All Hen Thr.

Early White Marrow. Gra. For similar names see *White Marrow.*

Early White Valentine. Liv.

Early Wonder. Buc Roc. For similar names see *Canadian Wonder.*

Early Yellow Eye. Brr. For similar names see *Yellow Eye.*

Early Yellow Kidney Six Weeks. Fer Loh.

Similar names. See *Long Yellow Six Weeks.*

Early Yellow Six Weeks. Alx Bur Brr *DD Drm* Ebr *Eic* RE Evr Fqr *Fld* Gng Gry Hns Ham Hbt Kg Kos *Man McK M&S* Pac Pot RP Shw Stk Tat Trm Vin Wat Wea Web Wlt Wd WS Y&H.

Similar names. See *Long Yellow Six Weeks.*

Electric Tree. Buc Roc. For similar names see *Prolific Tree.*

Emerson's Pea. Emr.

Emperor of Russia. Thr.

Emperor William. Bri Bur *CE* Cur Fmr G&T Hlm MWJ J&S *Jns* Ken Mhl Raw Rce Til Wer.

Similar names. Early Emperor William, Improved Emperor William.

Seedsmen's synonyms. *Dwarf Dutch Case Knife*, Jns.

English. Bui Cox Fmr Kei Mhl NK Raw Vau.

Seedsmen's synonyms. *Broad Windsor*, NK.

English Broad. Lam.

Seedsmen's synonyms. *Broad Windsor*, Lam.

English Broad Windsor. *McK* Pnt Pot. For similar names see *Broad Windsor.*

English Wonder. Lam. For similar names see *Canadian Wonder.*

Eureka. Frd.

Everbearing. Bng Bur *DD* Hbt MWJ Mzy Sal Thr *Tlh.*

Seedsmen's synonyms. *French Inexhaustible*, Bur. *Inexhaustible*, Bng Thr.

Evergreen. Evr.

Excelsior Refugee. Hst. For similar names see *Refugee.*

Extra Early. Hlm Pg.

Extra Early Dun Colored. Thr.

Extra Early English Kidney. Pks.

Extra Early Long Yellow Six Weeks. DD H&C.

Similar names. See *Long Yellow Six Weeks.*

Extra Early Mohawk. Koe. For similar names see *Mohawk.*

Seedsmen's synonyms. *Six Weeks*, Koe.

Extra Early Prize Winner. Rt.

Extra Early Red Speckled Valentine. JMP.

Similar names. See *Red Valentine.*

Extra Early Red Valentine. All Alr Bak Bel Bng Bur Brr CA Dlw *DD* Drr Eic Elt Frd GH *GN G&T* Hrn Hst *Hly* K&F Koe Lea Lnr *LB* Mas Mhl Mls Min Mv M&S Pnt Pri Qkr Rog Rs *Sox* Stw Vk *Wat* Wea Wlp.

Similar names. See *Red Valentine.*

Seedsmen's synonyms. *Improved Round Pod Valentine*, Frd.

Extra Early Refugee. Alx All Alr Bai Brd Bkt Bel Blg Bow Bdg Bgs Bri Brn Buc Bui Bur Cam CE Chl Cle C&B CCo Col CF Cox Crg CA Chm *Dlw* DD Drr Drm Ebr Eic Elt Evr Fmr *Fqr* Fst Fer Frd *Gdn* GH Gra Grn Gfg G&T TG Ham Hrm Hrn Hrv Hen H&C Hme H&P Iml *MWJ* J&S Jns Kg Kra Lam Lan Lnr LB Liv Mnd PM Mns Mas Mau May JMM Nol NK OV Old Pg Prn Pnt Ptt Por Pri Pug Raw Rce Roc Rog S&R Sox Spf Stk S&W *Tat* Tem Thr *Tpk Vl* Vau Vk *Wat* Wea W&D Wer *Wlt* Wd Wdr WS Wyg Y&H.

Similar names. See *Refugee.*

Seedsmen's synonyms. *Improved Refugee*, All Hlm. *One Thousand to One*, Bri DD JMM Tem.

Extra Early Round Pod Speckled Valentine. Fmr.

Similar names. See *Red Valentine.*

Extra Early Round Pod Red Valentine. Bow *Bur* Fer *Lam* Pg *Wlt* Wyg.

Similar names. See *Red Valentine.*

Extra Early Round Pod Valentine. Cur DD Fst Ham Hde H&C Hlm Nol SC S&B SB Tex.

Similar names. See *Red Valentine.*

Extra Early Valentine. Alx Bai Bdg Buc Emr Kg Mnd Man McK NK Ptt Ree Ren Roc Tat Thr.

Similar names. See *Red Valentine.*

Extra Early White Valentine. Bui. For similar names see *Red Valentine.*

Extra Early Yellow Six Weeks. Hrn *H&C.*

Similar names. See *Long Yellow Six Weeks.*

Farquhar's Dwarf Horticultural. Entered as *Dwarf Horticultural.*

First in the Market. Alx MWJ Lan Mel Stw.

Similar names. Landreth's First in the Market, Earliest Market, King of the Early Market, Thorburn's Prolific Market, Prolific Market.

French Forcing. *Vau.*

French Kidney. Ger.

Similar names. Dwarf French.

Seedsmen's synonyms. *Red Turkey*, Ger.

French Stringless. M&S *Nol.*

Galega Refugee. Raw Thr. For similar names see *Refugee.*

Seedsmen's synonyms. *Large Refugee*, Raw.

Georgia Prolific Bean. Hst.

German Soup. Sal. For similar names see *Turtle Soup.*

Giant Green Pod Stringless Valentine. *Brd* Btl Bkt Brn Bur Brr C&J Frd *Ggy* Hlm H&P Iml J&S Lnr Liv Mau May Neb *JMP* Rce SC Spf S&F *Shw* Sie S&H *Til Vl* WS Wd.

Similar names. See *Red Valentine.*

Giant Green Pod Valentine. All J&S *Wea.* For similar names see *Red Valentine.*

Giant Stringless Green Pod. *Alx Brd Blg* Bng Col *Dlw DD Drm Dun Gdn* Gfg G&T *Hrn* H&C *MWJ Jns* Liv *Loh JCM M&S* Old Pnt Thr Vau *WS.*

Similar names. See *Stringless Green Pod.*

Goddard. All Ans Brn Bur Brr *CE* Cle Fqr Fax Fer *Hrs* Hse *Lnr Mns* Pg HP Pot Raw Rce Rs S&F Shw Wdr Y&H.

Similar names. Goddard's Favorite, Improved Goddard.

Seedsmen's synonyms. *Boston*, Y&H. *Boston Favorite*, Bur Fqr S&F Ggy Raw Rce, etc.

Goddard's Favorite. Pri. For similar names see *Goddard.*

Goddard's Horticultural. *Bgg.*

Golden Refugee. Mzy S&W Thr W&D. For similar names see *Refugee.*

Great Northern. Wll.

Great Western. Evr.

Green Flageolet. Drr Elt *Thr.* For similar names see *Victoria Dwarf Flageolet.*

Seedsmen's synonyms. *Wonder of France*, Drr Elt.

Green Long Pod. Kei. For similar names see *Early Long Pod.*

Green Mazagan. Bdg. For similar names see *Early Mazagan.*

Seedsmen's synonyms. *English Horse Beans*, Bdg.

Green Nonpariel. Bdg.

Green Pod Stringless Valentine. S&H. For similar names see *Red Valentine.*

Green Windsor. Thr. For similar names see *Broad Windsor.*

Gunkler. Bgs Crs.

Seedsmen's synonyms. *Prolific Pickler*, Bgs.

Hammond's Banner Leafless, Hammond's Improved *Extra Early Round Pod Valentine.*

Hammond's Earliest. *Ham.*

Hasting's Excelsior Refugee. Entered as *Excelsior Refugee.*

Henderson's Cream Valentine, Henderson's Knickerbocker. Entered as *Cream Valentine, Knickerbocker.*

Hopkins' Improved Extra Early Round Pod Valentine. Hopkins' Improved Valentine. Entered as *Extra Early Round Pod Valentine, Valentine.*

Horse. Gra.

Similar names. *Small Horse, Early Horse Pea.*

Improved Dwarf Horticultural, Improved Early Long Yellow Six Weeks, Improved Early Mohawk, Improved Early Red Speckled Valentine, Improved Early Red Valentine, Improved Early Round Pod Speckled Valentine, Improved Early Round Pod Valentine, Improved Early Valentine, Improved Early Yellow Six

Weeks, Improved Emperor William, Improved Extra Early Red Valentine, Improved Extra Early Refugee, Improved Extra Early Round Pod Red Speckled Valentine, Improved Extra Early Round Pod Red Valentine, Improved Extra Early Round Pod Valentine, Improved Extra Early Valentine, Improved Goddard, Improved Large Refugee, Improved Large White Marrow, Improved Long Yellow Six Weeks, Improved Navy, Improved Prolific Tree, Improved Red Kidney, Improved Red Valentine, Improved Refugee, Improved Round Pod Red Valentine, Improved Round Pod Refugee, Improved Round Pod Six Weeks, Improved Round Pod Valentine, Improved Round Red Speckled Valentine, Improved Royal White, Improved Stringless Green Pod, Improved Tree, Improved Valentine, Improved White Kidney, Improved White Navy, Improved Yellow Eye. Entered as *Dwarf Horticultural*, *Early Long Yellow Six Weeks*, *Early Mohawk*, *Early Red Speckled Valentine*, *Early Red Valentine*, etc.

Inexhaustible. Bng Bur Mau Mzy Thr.

Seedsmen's synonyms. *Everbearing*, Bng Thr.

Johnson and Stokes' Giant Green Pod Valentine. Entered as *Giant Green Pod Valentine.*

Johnson's Wonderful. Kei. For similar names see *Canadian Wonder.*

King of the Early Market. M&S. For similar names see *First in the Market.*

King's Long Pod Stringless. Kg.

Knickerbocker. Hen.

Landreth's First in the Market. Entered as *First in the Market.*

Large Marrow. RE.

Large Negro Kidney. Hme. For similar names see *Negro Long Pod.*

Large Red Kidney. H&C Shm. For similar names see *Red Kidney.*

Large Refugee. Raw SB. For similar names see *Refugee.*

Seedsmen's synonyms. *Galega*, Raw.

Large White Dwarf Cranberry. Ken. For similar names see *Dwarf Cranberry.*

Seedsmen's synonyms. *Large White Marrow*, Ken.

Large White Kidney. Btl *Bel* Bgs Bri Bru C&B Cur D&H Elt Gra Hen Ptt Raw.

Similar names. See *White Kidney.*

Seedseen's synonyms. *Royal Dwarf*, Ptt Raw.

Large White Marrow. All Brd Btl Bel Bri Buc Brw *CE* Fer Frd TG *Hlm* Hop Hse H&P Iow Kra Lnr Loh Mau Min *JMP* Ren Ree Roc Shw Shm Sim Sox Trm Vl Vk.

Similar names. See *White Marrow.*

Seedsmen's synonyms. *Large White Cranberry*, Ken. *Mountain*, Fer Iml Kra Vk.

Late Refugee. All Rog Thr. For similar names see *Refugee.*

Seedsmen's synonyms. *One Thousand to One*; Brk McK Qkr Rog Thr Wer.

Lead Pencil. Nol.

Leafless Medium. Ham J&S. For similar names see *White Medium.*

Lightning. Eas Thr.

Similar names. Buist's Early Lightning Valentine, Early Lightning Valentine, Early Red Lightning Valentine.

Little Wonder Navy. Grw. For similar names see *Navy, Little Wonder Navy.*

Livingston's Round Yellow Six Weeks, Livingston's Yellow Six Weeks. Entered as *Round Yellow Six Weeks*, *Yellow Six Weeks.*

Longfellow. Bkt Hen Iml *Lan Lnr* May Ree Vau *W&D.*

Long White Kidney. Shm.

Long Yellow Six Weeks. All Anb Bai *Bak* Brd Brt Bkt Ber Bgg Brk Bdg Bgs Brn Bng Brw C&J CE Cle C&B CF Cur CA *D&H* Drr Dun Elt Emr Fmr Ger *Gls* GH Grn G&T Hde Hrm Hrv Hen Hlm H&P Iow J&M J&S Jns Ken Kra Lea Lnr LB Liv Mnd Mgd JMM MV Mzy Neb Nef Nol *Pac* Pg HP Prn *Put* Pri

Rce Roc Rog S&F *Shw* S&O Sox Tex Thm Thr Til T&B *Vl* Vau Vk *Wea* W&D Yng.

Similar names. Improved Long Yellow Six Weeks, Early Long Yellow Six Weeks, Extra Early Long Yellow Six Weeks, Improved Early Long Yellow Six Weeks, Yellow Six Weeks, May's Yellow Six Weeks, Early Yellow Six Weeks, Livingston's Yellow Six Weeks, Extra Early Yellow Six Weeks, Improved Early Yellow Six Weeks, Round Yellow Six Weeks, Livingston's Round Yellow Six Weeks, Early Round Yellow Six Weeks, Early Yellow Kidney Six Weeks, Brown Yellow Six Weeks, Early Mohawk Six Weeks, Improved Round Pod Six Weeks.

Seedsmen's synonyms. *Rob Roy*, Ken.

Low's Champion. All Brt Brk Brb Brr C&J CE Cle CF *Dun* Elt Emr *Ggy* Grn Gry Hrm Hlm K&W MV *JMP* Pne Pot Raw Rce Rog *Rs* S&F Sox *Wdr.*

Similar names. Low's Early Champion.

Low's Early Champion. Fqr. For similar names see *Low's Champion.*

Lyonaise. Thr.

McCullough's Improved Round Pod Red Valentine. Entered as *Round Pod Red Valentine.*

McKenzie's Matchless, McKenzie's Marrowfat. Entered as *Matchless, Marrow.*

McMillan's Stringless Round Pod Valentine. Entered as *Stringless Round Pod Valentine.*

Mammoth Stringless Green Pod. *CF* Drr *TG Hrm* Lan Lnr Mhl *Rs Vau* W&D *Wdr.*

Similar names. See *Stringless Green Pod.*

Mammoth Stringless Valentine. Tat. For similar names see *Red Valentine.*

Marblehead Dwarf Horticultural. GH. For similar names see *Dwarf Horticultural.*

Marrow. Ken McK. For similar names see *White Marrow.*

Marrow Pea. Hrs. For similar names see *White Marrow.*

Seedsmen's synonyms. *White Navy*, Hrs.

Marvel of Paris. Mzy Thr.

Matchless. *McK.*

May's White Valentine, May's Yellow Six Weeks. Entered as *White Valentine, Yellow Six Weeks.*

Mazagan. Gra. For similar names see *Early Mazagan.*

Medium. NK Ptt. For similar names see *White Medium.*

Medium Navy. Ar. For similar names see *Navy, White Medium.*

Mexican. Alr *CE* DD Hns JMM MV Pir Rce *Sox.*

Similar names. Mexican Tree, Mexican Prolific Tree, White Mexican.

Mexican Prolific Tree. Ren. For similar names see *Mexican, Prolific Tree.*

Mexican Tree. JL. For similar names see *Mexican, Prolific Tree.*

Seedsmen's synonyms. *Cala*, JL. *Prolific Tree*, Alr JMM.

Mill's Improved Prolific Tree. Entered as *Prolific Tree.*

Mohawk. Brt Bkt Bri Bru Cam Cle Dlw Ebe RE Grn Hme Lan *McK* McM Nef Ptt Ren Sim.

Similar names. Early Mohawk, Improved Early Mohawk, Extra Early Mohawk, Early Brown Mohawk, Early Mohawk Six Weeks.

Seedsmen's synonyms. *Brown Six Weeks*, Brt Bkt. *Early Brown Six Weeks*, Dlw Lan.

Mountain. Fer Kra Vk.

Seedsmen's synonyms. *Large White Marrow*, Fer Iml Kra Vk.

Navy. Btl *Brn* Buc Fmr GH Grn Hns Ken Kra Lnr Mns JCM JMM Nol NK Pir Ptt Shw Stw Tat Vau Wer.

Similar names. Improved Navy, White Navy, Improved White Navy, Dwarf White Navy, Medium Navy, Small Navy, Small White Navy, Dewey Navy, Early Boston Navy, Little Dwarf Navy, Royal Dwarf Navy.

Seedsmen's synonyms. *Boston Pea*, Drr Fmr Kra Liv Mns Nol. *Pea*, Ggy. *Prolific Tree*, Sox. *White Pea*, Ptt.

Negro Long Pod. All RHJ.

Similar names. Large Negro Kidney. See also *Early Long Pod.*

Ne Plus Ultra. Bur Hme Mzy Wat.

Newington Wonder. Hme M&S *Nol.* For similar names see *Canadian Wonder.*

North Star. GN.

Norwood Giant Stringless Green Pod. JMM.

Similar names. See *Stringless Green Pod.*

One Thousand to One. Brd Ber Bow Bdg Bgs Brn Bru Bng Bui Bur Brr Cam CE Cle C&B CF Cox Crs Cur Chm DD Drm Ebe Elt Fst Fer Frd Gls Gdn Gng Gfg Grw Hrm Hrs Hrv Hen H&C Hlm Hop H&P Iml Iow Jac J&S Jns Kg Kos *Lam* Lnr Liv Loh Mnd *Mau* JMM McK Min MV Mzy Nol Pg HP Pnt Ptt Por Pri Qkr Raw Ren Rce Roc Rog RP S&R Shw S&O Sie Sim Sox Stw Thr Tem Til Vl Vau Vin Wea Web W&D Wer *Wlt* Wd Wdr WS Wyg Yng Y&H.

Seedsmen's synonyms. *Brown Speckled Valentine*, Lan. *Early Refugee.* Bui Gdn Grw Iow Raw Stw. *Extra Early Refugee*, Bri DD JMM Tem. *Improved Refugee*, Ebe WS. *Late Refugee*, Brk McK Qkr Rog Thr. *Refugee*, Alx Bur Buc Fer Hen Lan Liv, etc.

Oregon Green Podded. Lam.

Oregon Tree. *Bow.*

Page's Extra Early. Pg.

Pea. Bri J&S Mv Tat. For similar names see *Boston Pea.*

Seedsmen's synonyms. *Navy*, Ggy. *White Navy*, Bri Iml J&S MV.

Pride of Newton. Stk Thr Wer.

Prolific Market. Brk Stk Thr W&D. For similar names see *First in the Market.*

Prolific Pickler. Bgs Vk. For similar names see *Vick's Prolific Pickler.*

Seedsmen's synonyms. *Gunkler*, Bgs.

Prolific Tree. Alr Ar Bkt Brk Bur *CE* Col Cok Cur Del DD Fqr Fst *Fld* Frd Grn Gry Hst Hbt Iow JMM J&S Lnr Mau Mgd Mic Mls MV Neb NI Pg HP Rce RP Shw S&O Shm Sox Tem Wer Wyg.

Similar names. Improved Prolific Tree, Mill's Improved Prolific Tree, Mexican Prolific Tree, Mexican Tree, Tree Bean, Improved Tree, Electric Tree, Wisconsin Tree, California Tree, California White Tree, Wernich's Improved Prolific Tree, Tree.

Seedsmen's synonyms. *California Branch*, Ar Iow. *California Tree*, Wyg. *Mexican Tree*, Alr JMM. *Navy*, Sox.

Purple Speckled. Hme.

Quail Head. Brr.

Seedsmen's synonyms. *Cranberry*, Brr. *Horticultural*, Brr.

Rapp's Favorite. J&M.

Similar names. Shipper's Favorite.

Red Dwarf Cranberry. Brk Emr GH. For similar names see *Dwarf Cranberry.*

Red Eye. *Brr* Ptt Pri. For similar names see *China Red Eye.*

Seedsmen's synonyms. *China*, Pri.

Red Kidney. All Bkt Brn Brb *Bur* Brr C&B Crs Dun Eic Emr Ger GH Grn Hen Kg MWJ JCM NK Ptt *Rce* Rt Shw Shm Sox Stk.

Similar names. Improved Red Kidney, Large Red Kidney.

Seedsmen's synonyms. *Chilian*, Brr Ptt.

Red Speckled Valentine. JMM. For similar names see *Red Valentine.*

Red Turkey. Ger.

Seedsmen's synonyms. *French Kidney*, Ger.

Red Valentine. Bkt *Bgg* Bri CE Cox Crg Grn Grw Hbt H&C H&P J&M Ken Mgd Man Mns *May* Nef OV Pir Por Pug Raw S&R Sqr S&H S&W *Tpk Vl* Wat Wer.

Similar names. Improved Red Valentine, Cleveland's Improved Red Valentine, Cox's Improved Red Valentine, Early Red Valentine, Improved Early Red Valentine, Extra Early Red Valentine, Improved Extra Early Red Valentine, Valentine, Improved Valentine, Cleveland's Improved Valentine, Hopkins' Improved Valentine, Early Valentine, Improved Early Valentine, Extra Early Valentine, Tait's Extra Early Valentine, Improved Extra Early Valentine, Early Lightning Valentine, Early Red Lightning Valentine, Buist's Early Lightning Valentine, Mammoth Stringless Valentine, Green Pod Stringless Valentine, Giant Green Pod Stringless Valentine, Johnson & Stoke's Giant Green Pod Valentine, Giant Green Pod Valentine, Round Pod Valentine, Improved Round Pod Valentine, Improved Early Round Pod Valentine, Improved Extra Early Round Pod Valentine, Extra Early Round Pod Valentine, Hammond's Improved Extra Early Round Pod Valentine, Hopkins' Improved Extra Early Round Pod Valentine, McMillan's Stringless Round Pod Valentine, Round Pod Red Valentine, Improved Round Pod Red Valentine, Early Round Pod Red Valentine, Extra Early Round Pod Red Valentine, Improved Early Round Pod Red Valentine, McCullough's Improved Round Pod Red Valentine, Improved Extra Early Round Pod Red Valentine, Speckled Valentine, Red Speckled Valentine, Improved Early Red Speckled Valentine, Extra Early Red Speckled Valentine, Wood's Early Red Speckled Valentine, Improved Early Round Pod Speckled Valentine, Improved Round Red Speckled Valentine, Improved Extra Early Round Pod Red Valentine, Brown Speckled Valentine, Henderson's Cream Valentine, Cream Valentine, Black Valentine, Brown Valentine, White Valentine, May's White Valentine, Union White Valentine, Extra Early White Valentine.

Refugee. Alx All Brd Btl Bkt Ber Bou Bow Brk Bdg Bgs Bri Brn Bru Bng Buc Bur Brr Cam CE Cle C&B CF Cox Crs Cur Chm Dlw Drm Ebe Elt Emr Fqr Fst Fax Fer Frd Gls GH Gng Grn Gry Gfg Hns Hrm Hrs Hrv Hen H&C Hlm Hop Hme H&P Iml MWJ J&S Jns Kei Ken Kg Kos *Lam* Lan Lnr Mau Loh May Mnd Liv JCM *JMM* McK Min MV Mzy NK *Pac* HP Pir Pnt Ptt Por Pot Pri Qkr Ren Rce Roc RP S&R SC S&F Shw S&O Sie Sim Sox S&W Til Trm T&B Vl Vau Vin Wea Web W&D Wer Wd Wdr WS Wyg Yng Y&H.

Similar names. Improved Refugee, Improved Round Pod Refugee, Round Podded Refugee, Improved Large Refugee, Large Refugee, Late Refugee, Early Refugee, Extra Early Refugee, Thorburn's Extra Early Refugee, Cleveland's Improved Extra Early Refugee, Improved Extra Early Refugee, Hastings' Excelsior Refugee, Golden Refugee, Galega Refugee, Refugee Pickling, Excelsior Refugee.

Seedsmen's synonyms. *Extra Early Refugee*, All Hlm. *One Thousand to One*, Ebe WS Bur Fer Hen Lan, etc. *Brown Speckled Valentine*, Bkt Btl Dlw Lan.

Refugee Pickling. Ebe. For similar names see *Prolific Pickler*, *Refugee.*

Rob Roy. Ken.

Seedsmen's synonyms. *Long Yellow Six Weeks*, Ken.

Rose. HP.

Round Pod Red Valentine. Cam Cle Grw JCM JMM Spf.

Similar names. See *Red Valentine.*

Round Pod Refugee. Hst *Mau* McM. For similar names see *Refugee.*

Round Pod Six Weeks. Lon. For similar names see *Long Yellow Six Weeks*

Round Pod Valentine. Brn C&J DD Fld JL S&O Sim.

Similar names. See *Red Valentine.*

Seedsmen's synonyms. *Extra Early Red Valentine*, Frd.

Round Red Speckled Valentine. Hlm J&S. For similar names see *Red Valentine.*

Round Yellow Six Weeks. *Bow* Brk Brn Bur Crg Eic Fer H&C Hlm Jns Lam Liv Mnd Min Mzy Pnt Rce Stw Thr Vau.

Similar names. See *Long Yellow Six Weeks.*

Seedsmen's synonyms. *Yellow Cranberry,* Brk.

Royal. Bdg. For similar names see *Royal Dwarf.*

Royal Dwarf. Brd Bkt Bui Crs Dlw Drr Frd Hrv J&S Liv JMM Mhl MV Nef Ptt Raw Sim *Sox* Wdr.

Similar names. Royal, Early Royal Dwarf Kidney, Improved Royal White, Royal White Kidney, Royal Dwarf White Kidney, Early Royal Dwarf White Kidney, Royal Dwarf Navy, Royal White.

Seedsmen's synonyms. *Large White Kidney,* Ptt Raw. *White Kidney,* Brd Bkt Bur J&S Mhl Vk.

Royal Dwarf Kidney. Bow Fer Hrn Lam Loh Nef Ren SB.

Royal Dwarf Navy. Fer. For similar names see *Navy, Royal Dwarf.*

Royal Dwarf White Kidney. Mns *JMM* Min Pnt Spf Stw.

Similar names. See *Royal Dwarf.*

Royal White. *CE* Rce. For similar names see *Royal Dwarf.*

Seedsmen's synonyms. *White Kidney,* Rce.

Royal White Kidney. Por Rce S&R. For similar names see *Royal Dwarf.*

Ruby Dwarf Horticural. *Rce* Rog S&F.

Similar names. See *Dwarf Horticultural.*

Salzer's Colossal Stringless Green Pod, Salzer's German Soup, Salzer's White Wonder, Salzer's Yankee Winter. Entered as *Colossal Stringless Green Pod, German Soup, White Wonder, Yankee Winter.*

Savage & Reid's Stringless. *S&R.*

Scotia. Hrs.

Shipper's Favorite. Bui Gdn. For similar names see *Rapp's Favorite.*

Simmers' Canadian Wonder. Entered as *Canaidan Wonder.*

Sion House. Mhl Wat.

Small Horse. Thr. For similar names see *Horse Bean.*

Small Navy. Ar Kos. For similar names see *Navy.*

Small White Navy. Shm. For similar names see *Navy.*

Smart's Hybrid. Chl.

Snowflake. Ggy K&W M&S.

Seedsmen's synonyms. *Boston Pea,* M&S.

Speckled Cranberry Bush. *Bgg Ger* Rs.

Seedsmen's synonyms. *Dwarf Horticultural,* Rs.

Speckled Valentine. Trm. For similar names see *Red Valentine.*

Stringless Green Pod. Alx All Alr Ans Ar Bak Brd *Brt* Btl Bkt Blg Bow *Bgg* Brk Bdg Brn Bng Buc Bui Brb Bur Brr Brw C&J Cam CE CF Crs Cur Chm DD Drr Drm Dun Ebr Elt Emr *Fmr* Fqr Fer Fld Frd Gdn GH *GN* Gfg G&T *Grw* TG Ham Hde Hrs Hrv Hst H&C Hlm Iml Iow Jac Jer *MWJ* J&M J&S Jns K&W Ken K&F Kg Koe Lam *Lan* Lnr LB Liv JL Mgd Mns Mau May JCM JMM McM Mel Mhl Mic Mls MV Mzy Nol Old Pg JMP *Pne* Pnt Poo *Por Pot* Qkr Raw Rce Rim Roc Rog S&R SC S&F Shw Shm Sie Sox Spf Stw S&H S&W Tat Tem Tex Thm *Thb AGT Tlh* Til Trm Vl Vau Vk *Wat* Wea Web W&D Wlt *Wd* Wdr WS Wyg Yng Y&H.

Similar names. Stringless Green Round Pod, Improved Stringless Green Pod, Alexander Stringless Green Pod, Burpee's Stringless Green Pod, Giant Stringless Green Pod, Norwood Giant Stringless Green Pod, Mammoth Stringless Green Pod, Salzer's Colossal Stringless Green Pod, Colossal Stringless Green Pod.

Stringless Green Round Pod. DD Ebr Ptt.

Similar names. See *Stringless Green Pod.*

Stringless Round Pod Valentine. McM. For similar names see *Red Valentine.*

Stringless Wonder. *Crg.*

Similar names. Craig's Stringless Wonder.

Succotash. Grw.

Seedsmen's synonyms. *White Marrow*, Grw.

Swedish. NK.

Seedsmen's synonyms. *Brown Field*, NK.

Sword Long Pod. Bdg D&H DD Mzy RE Thr. For similar names see *Early Long Pod.*

Seedsmen's synonyms. *Long Turkey*, Bdg.

Taber's IXL. Sim.

Tait's Extra Early Valentine. Entered as *Extra Early Valentine.*

Taylor's Broad Windsor. Bru *D&H.*

Taylor's Green Pod. WS.

Thorburn's Extra Early Refugee, Thorburn's Prolific Market. Entered as *Extra Early Refugee* and *Prolific Market.*

Tree. CCo Fmr H&P Kra NK Por S&R Spf. For similar names see *Prolific Tree.*

Seedsmen's synonyms. *California Wonder*, NK. *California Branch*, H&P. *Vineless Marrow*, Lam.

Triumph of the Frames. Drr Fqr G&T Mhl S&F Thr Vau.

Turtle Soup. Brk Grn S&F.

Similar names. Black Turtle Soup, Salzer's German Soup, German Soup.

Uncle John. *Lam.*

Union White Valentine. H&P. For similar names see *Red Valentine.*

Valentine. All Bru Brb Cle Dun Fle Gdn Gry Hrs Jac MWJ Kei Mnd Sie Stk *Tth* Vl.

Similar names. See *Red Valentine.*

Vick's Prolific Pickler. Entered as *Prolific Pickler.*

Victoria Dwarf Flageolet. Thr.

Similar names. Green Flageolet, White Flageolet.

Vineless Marrow. Bur Ebr Fer Hbt Lam *Lnr* Mau Pg.

Similar names. See *White Marrow.*

Seedsmen's synonyms. *Tree*, Lam.

Vienna Forcer. S&F Thr.

Wait's Early Long Pod. Gra. For similar names see *Early Long Pod.*

Wait's Improved Early Long Pod. Entered as *Wait's Early Long Pod.*

Warren. All Brt Btl *CF* Cur Elt Fqr Ggy Grn Gry Ptt *Rce* Rog S&F.

Wernich's Improved Prolific Tree. Entered as *Prolific Tree.*

White Dwarf Cranberry. Stw. For similar names see *Dwarf Cranberry.*

White Field. *McK* Ptt Ren.

White Flageolet. All *RHJ* Thr.

White Kidney. Brd Bdg Brn Bui C&J Cle CF Crs Drr Eas Ebe Eic Ewg Fst Frd Grn TG Hrv *H&C* RHJ J&S Kra Lnr JL *Mau* JCM JMM Mhl MV Nef Nol Pac HP Pri Sim *Sox* Stk Thr Til Vau Vk Wea Web W&D Wdr.

Similar names. Improved White Kidney, Large White Kidney, Dwarf White Kidney.

Seedsmen's synonyms. *Improved Royal Dwarf*, Rce. *Royal Dwarf*, Brd Bkt Bui J&S Mhl Vk, etc.

White Marrow. Ar Bkt Brk Bdg Bgs Brn Bui Bur Brr C&J Cle C&B CF Crs Cur D&H DD Drr Ebe Evr Ewg Fmr Fst Grn Grw Hen H&C Hme J&S JL Lon Mns May JCM Mhl Mzy Nol OV HP Ptt Pri Qkr Raw S&O Spf S&H *Tem* Thr Til *Tpk* Vau Wea W&D Wer Wdr Wyg Y&H.

Similar names. Early White Marrow, Large White Marrow, Improved Large White Marrow, Marrow, Early Marrow, Boston Marrow, Vineless Marrow, Marrow Pea, Early Marrow Pea, Large Marrow.

Seedsmen's synonyms. *Succotash*, Grw.

White Medium. Btl Crs Hme Wdr.

Similar names. Medium, Medium Navy, Burlingame Medium, Day's Leafless Medium, Day's Improved Leafless Medium, Leafless Medium.

White Mexican. Hst Shm. For similar names see *Mexican*.

White Navy. Alx Brd Blg Bri Col CA DD Hrn Hrs H&C H&P MWJ J&S Koe JL PM May Mic Min MV HP Roc S&O *Sox* TB *Vl* Wd WS Wyg.

Similar names. See *Navy*.

Seedsmen's synonyms. *Boston Pea*, May HP. *Marrow Pea*, Hrs. *Pea*, Bri Iml MV.

White Pea. Brr Ewg Hme Ken Ptt Raw S&F *Sox*.

Similar names. See *Boston Pea*.

Seedsmen's synonyms. *Navy*, Ptt.

White Valentine. Ans Buc *CE* D&H DD Grn Haw H&C Lea May JCM JMM Min Mnd Mns MV Rce Rog SC S&B *Shw* Sox *Wyg*.

Similar names. See *Red Valentine*.

White Wonder. Ber Evr Fld Sal. For similar names see *Canadian Wonder*.

Wilson's Yellow Eye. Rog. For similar names see *Yellow Eye*.

Wisconsin Tree. Evr M&S Sie Vl. For similar names see *Prolific Tree*.

Wonder of France. Brk Bdg Fqr Gra Raw Wea W&D.

Seedsmen's synonyms. *Green Flageolet*, Drr Elt. *Improved Green Flageolet*, Bdg.

Wood's Bacon, Wood's Early Red Speckled Valentine. Entered as *Bacon*, *Early Red Speckled Valentine*.

Wood's Earliest Hardiest. Wd.

Wren's Egg. Lan Lnr.

Yankee Winter. Sal. For similar names see *Salzer's Yankee Winter*.

Yellow Dwarf Cranberry. Brk Gry Raw S&F Wdr.

Similar names. See *Dwarf Cranberry*.

Seedsmen's synonyms. *Round Yellow Six Weeks*, Brk.

Yellow Eye. Brk Emr Ewg Fqr Gry K&W Raw S&F.

Similar names. Early Yellow Eye, Improved Yellow Eye, Boston Yellow Eye, Wilson's Yellow Eye.

Seedsmen's synonyms. *Boston Favorite*, Ewg.

Yellow Kidney. Lon.

Yellow Six Weeks. Blg Bri Bru Chm *Eas* Ewg Fle Gls Gra Hly Hme K&F Lan *Lnr* Lon PM *May* NI OV Ren Sim Tem.

Similar names. See *Long Yellow Six Weeks*.

BEAN (POLE BEAN).

Alpha. Evr. For similar names see *Everett's Alpha*.

American Sickle. JMP. For similar names see *Sickle*.

Andalusia. Sal.

Similar names. Golden Andalusia.

Archias' Improved Kentucky Wonder. Entered as *Kentucky Wonder*.

Arlington Red Cranberry. Fqr Raw S&F. For similar names see *Cranberry*.

Asparagus. Bai Bow Bdg Bru CCo RE *Ewg* Ger Gra Kei Lam M&S Por S&R S&F Sim.

Similar names. Vair's Asparagus, French Asparagus, Cuban Asparagus.

Seedsmen's synonyms. *French Yard Long*, Bow. *Kentucky Wonder*, Lam. *Old Homestead*, Lam. *Snake*, Ger. *Yard Long*, Bdg Bru Kei S&F Sim.

Best of All Pole. Bkt *Bur* Col Drr McM M&S OV *Tem.*

Seedsmen's synonyms. *White Crease Back,* Bkt Col Drr McM Old. *Transylvania Butter,* M&S.

Big Sioux. Spf.

Seedsmen's synonyms. *Hemisphere,* Spf.

Black Algerian Wax. Ggy.

Seedsmen's synonyms. *Indian Chief,* Ggy.

Black Butter Pole. Ewg Gra McK. For similar names see *Butter Pole.*

Seedsmen's synonyms. *Indian Chief,* Ewg Gra Ren.

Black Kentucky Wonder. JCM. For similar names see *Kentucky Wonder.*

Black Wax Pole. Bel Brb Cle Crs Dun Ebe GH Grw Hrm Hrn J&S May Mzy OV Rog Rs RP *Tpk* Trm Wea W&D.

Similar names. German Black Wax, Tall German Black Wax, Tall Black Wax, Giant Black Wax, Salzer's Giant Black Wax.

Seedsmen's synonyms. *Indian Chief,* Brk Cle Dun GH J&S Rs.

Brockton. Brk CF Emr Fqr Grn Gry Raw Rce Rs SC S&F.

Buckbee's Holstein. Entered as *Holstein.*

Burpee's Sunshine Wax, Burpee's White Zulu. Entered as *Sunshine Wax, White Zulu.*

Butter Pole. Bui *Kei* Pri Wea.

Similar names. Golden Butter, Black Butter, German Butter, Transylvania Butter, White Seeded Butter.

Seedsmen's synonyms. *German Wax,* Pri. *Black Wax,* Wea.

California Wax. Ans.

Carmine King Horticultural Pole. Brt.

Similar names. See *Horticultural Pole.*

Carmine Podded. All.

Similar names. Carmine Podded Horticultural Pole, Worcester Carmine Podded.

Carmine Podded Horticultural Pole. Brk K&W.

Similar names. See *Horticultural Pole.*

Case Knife. Ar Brb Brr Ebe Ebr Lan Sal. For similar names see *Dutch Case Knife.*

Seedsmen's synonyms. *White Dutch,* Lan Brb.

Cherry Pole. Blg PM.

Similar names. White Cherry.

Seedsmen's synonyms. *Speckled Horticultural,* Blg PM.

Childs' Mammoth Podded Horticultural Pole. Entered as *Mammoth Podded Horticultural Pole.*

Columbia. Fqr.

Similar names. Farquhar's Columbia.

Concord. Emr Grn Pot *Rs.*

Corn Field. Alx Gdn MWJ Wd WS. For similar names see *Corn Hill.*

Seedsmen's synonyms. *Cut Short,* Alx Wd. *Red Speckled Cut Short Corn Field,* Lam. *Speckled Cut Short,* Gdn.

Corn Hill. Brd Btl Bri Buc CE Col *Crg* Crs *Drm* Fer Fld GH G&T Grw Hns Hrn Inl J&S Lnr JL Loh Lon Mgd Mns *Man* May JCM JMM MV Neb *Nol* HP *Pat* Rce Roc RP Sal SC Shw S&O Sox Spf Thr Trm Vl Web Wyg Yng.

Similar names. Corn Field, White Cornfield, Tennessee White Corn Hill, Oval Seed Field Corn Bean, Red Speckled Oval Seeded Cut Short Corn Field.

Seedsmen's synonyms. *Cut Short,* Brd Btl Bri JCM Mgd Trm. *Large White Marrow,* Btl. *Red Speckled,* RP. *Red Speckled Cut Short,* Buc Crs Fer Liv Mns Rce, etc. *Speckled Cut Short,* G&T Hrn J&S Spf Thr.

Cranberry. Brt Bkt Bel Bri Bur Brr Ewg Fld Gls Cra TG Ham Haw H&C J&M *Pac* Poo Ren Rce RP Tem T&B Web Wer Y&H.

Similar names. Red Cranberry, Arlington Red Cranberry, Speckled Cranberry, Speckled Horticultural Cranberry, Horticultural Cranberry, Mammoth Horticultural Cranberry.

Seedsmen's synonyms. *Bird Egg*, Fld. *Horticultural*, Brt Bkt Bur Ree RP Tem, etc. *London Horticultural*, SB. *Wrenn's Egg*, Bur Ham.

Creaseback. Alx Bai Cur DD *Drm* Eic Fmr Fst Ger Gdn Gra Grn G&T H&C Hlv Jac J&M Lan Stk TB Thm Vau Wd WS.

Similar names. White Creaseback, Improved White Creaseback, Southern White Creaseback, Southern Creaseback.

Seedsmen's synonyms. *Fat Horse*, Alx Eic Fmr G&T Lan Wd, etc. *Mobile Bean*, Eic.

Crosby's Horticultural Pole. Fqr. For similar names see *Horticultural Pole.*

Cuban Asparagus. Bur Col Frd Liv Pks Ren.

Similar names. See *Asparagus.*

Seedsmen's synonyms. *Yard Long*, Bur Col Liv Pks Ren.

Cut Short. Alx Brd Btl Ber Bri CE Col *Crg* Crs *Drm* Ebr Fld Ger GH Grw Hns Iow JL Lon Mgd Mns May JCM JMM NI *Ren* Ree Shw S&O Sox SB Trm Vl Wd WS Yng.

Similar names. Cut Short White, Cut Short Red Speckled, Cut Short Speckled, Cut Short Oval Seeded Red Speckled, Cut Short Speckled Corn Bean.

Seedsmen's synonyms. *Corn Field*, Alx Wd. *Corn Hill*, Brd Btl JL JCM Mgd Trm, etc. *Red Speckled*, SB.

Cut Short White. H&C Ree. For similar names see *Cut Short.*

Dreer's Early Golden Cluster, Dreer's Golden Cluster. Entered as *Early Golden Cluster* and *Golden Cluster.*

Dutch Case Knife. Bai Brd Bkt Bel Ber Bow Bgg Brk Bri Brn Bui LB CE Cle Crg Crs D&H DD Eic Emr Ewg Fmr Fqr Fst Fer Fld Frd GH Gra Grn Gry G&T Hrn Hrv H&C Hse Hnt H&P Jer J&S Jns Lam Lea Lnr Loh Mnd Mas May JCM JMM Mic MV M&S Mzy Nef Nol NI *Pac* Pg HP Fir Prn *Pnt* Ptt Poo Raw Ree Ren Rog Rs *Shw* S&O Sox Spf Stk SB Tat Tem TB Thr AGT Til Tpk Trm T&B *Vl* Vau Vk Vin Wer Wdr *Wyg.*

Similar names. Improved Dutch Case Knife, Early Case Knife, Early Dutch Case Knife, Early White Dutch Case Knife, Long White Dutch Case Knife, Case Knife, White Dutch Case Knife, Salzer's Case Knife, White Case Knife.

Dutch Runner. Mau. For similar names see *White Runner.*

Early Case Knife. CF. For similar names see *Dutch Case Knife.*

Early Dutch Case Knife. C&J Elt Grw TG *Kei* K&F JL Neb Pnt Por Pug S&R Sim Thb W&D.

Similar names. See *Dutch Case Knife.*

Early Golden Cluster. Ar Btl *Bgg* Bdg Brn Buc Bui *Bur* Brr C&J Chl C&B Col Cur Evr *Ewg* Fst Fer Frd *Gls* Gdn GH Gra Hde *Hrn* Hen H&C Hlm H&P J&S Lam Lnr *Loh* McK Mhl Liv Neb Nef Pg HP Prn Pne Pnt Ptt Poo Pri Raw Ren *Spf* Stk S&H S&W Tem Trm Vl Vau Vk Wdr Yng *Y&H.*

Similar names. See *Golden Cluster.*

Early White Dutch Case Knife. Evr. For similar names see *Dutch Case Knife.*

Eastern Wonder. Pg. For similar names see *Tennessee Wonder.*

Everett's Alpha. Entered as *Alpha.*

Extra Early Golden Cluster. Sie W&D. For similar names see *Golden Cluster.*

Extra Early Horticultural Pole. *Rs.*

Fallson. Ber.

Farquhar's Columbia. Entered as *Columbia.*

Fat Horse. Alx Bai Bri Bui Cur CA DD *Drm* Gdn G&T Hde H&C Jac MWJ J&S K&F Lan M&S *Nol* Pnt Spf TB Wd WS.

Seedsmen's synonyms. *Creaseback*, Alx CA DD Eic Lan WS, etc. *Mobile Bean*, Eic. *Southern White Creaseback*, Bui. *White Creaseback*, Bri Hde J&S K&F M&S Pnt Spf.

Flageolet Wax Pole. Ans Brk Cle Mzy Shw.

Similar names. Golden Wax Flageolet Pole.

French Asparagus. Bkt DD Mau. For similar names see *Asparagus*.

Seedsmen's synonyms. *Yard Long*, Bkt DD.

Florida Butter. Gfg.

French Yard Long. Bow Mzy Ptt Thr Vin. For similar names see *Yard Long*.

Seedsmen's synonyms. *Asparagus*, Bow.

Georgia Monstrous. CA.

German Black Wax Pole. *CE* CF Crs Emr Ger Tg *Hly* Kos Mas Neb Ptt Rce S&O S&W Thr Wer.

Similar names. See *Black Wax Pole*, *German Wax Pole*.

Seedsmen's synonyms. *Algerian*, Bdg. *Indian Chief*, Ptt Rce.

German Butter Pole. W&D. For similar names see *Butter Pole*.

Seedsmen's synonyms. *Black Wax*, W&D. *Indian Chief*, W&D.

German Wax Pole. Bui C&B Gdn Hen Hlm Jac Pri Tat Y&H.

Similar names. Tall German Wax Pole.

Seedsmen's synonyms. *Butter*, Pri Bui.

Giant Black Wax Pole. Sal. For similar names see *Black Wax Pole*.

Giant Red Wax Pole. Bdg *CE* Cle Fst GH H&P J&S Lea Liv JL May Neb HP.

Similar names. See *Giant Wax Pole*.

Giant Sword. Dlw.

Giant Wax Pole. Hnt Kei JMP.

Similar names. Giant Red Wax, Tall Wax.

Giant White Runner. Sim. For similar names see *White Runner*.

Golden Andalusia. Alr Bel Buc *CE* Cur Frd H&P J&S JMM *McK* MV HP JMP Rce Roc Ren *Shw* Shm Sim *Sox Thr Vl* Wer.

Similar names. See *Andalusia*.

Golden Arlington. Bel.

Golden Butter Pole. Brk Bdg CE Cok Dun Fqr Gry Hlm Kg Man Pir Prn Rce Sal S&F.

Similar names. See *Butter Pole*.

Seedsmen's synonyms. *Mont d'Or Wax*, Brk Bdg Dun Fqr Gry Ken S&F. *Tall Mont d'Or*, Cle Prn.

Golden Champion. *Bkt* Buc Col Drr Elt Fqr Ggy Hen *Lnr* Pg Rce Rog Sim S&W Tem Wdr.

Golden Cluster. Bai Brt Bkt Bel Brk Bdg Bng Bur *CE* CF Crs Cur Drm Eas Ebe Elt Emr Fmr Fqr *Fld* Frd GH Ggy Gry TG Hns Hrs Hrv Haw Hse Hnt Iml Iow MWJ Ken Mnd Mgd Mau May JMM MV NK JMP *Pnt* Pot Qkr Rce Rim SC S&F S&B Sox *Thr* Wer Y&H.

Similar names. Wax Pole, Golden Wax Pole, Early Golden Cluster, Extra Early Golden Cluster, Dreer's Early Golden Cluster, Dreer's Golden Cluster.

Seedsmen's synonyms. *Mont d'Or*, MV Wer.

Golden Lazy Wife. Mau. For similar names see *Lazy Wife*.

Golden Mastiff Pod. McK Ren.

Golden Wax Flageolet Pole. Bui Bur Eic Rce Stk.

Similar names. See *Flageolet Wax Pole*.

Golden Wax Pole. Mau. For similar names see *Golden Cluster*.

Hammond's Lazy Wife. Entered as *Lazy Wife*.

Hampden. All *Bgg* Pot Rce.

Seedsmen's synonyms. *Mammoth Podded Horticultural*, Fer. *Mugwump*, Fer. *Worcester*, Fer.

Hemisphere. Pnt Spf.

Seedsmen's synonyms. *Big Sioux*, Spf.

Hempshire. JCM.

Holstein. Buc.

Similar names. Buckbee's Holstein.

Horticultural Cranberry Pole. Ar *Cam* CE Cle CF DD Elt *Evr* GH Ham Hlm K&F Kra *Mns* JMM Pne Pnt SC *Sox Tpk* Vau W&D Wdr.

Similar names. See *Horticultural Pole, Cranberry.*

Seedsmen's synonyms. *Wren's Egg*, Hlm.

Horticultural Lima. All Bgg Brw CE Cur Eas Fqr Hrm Hse Lam Lan Lea Lnr McK Mhl MV Mzy Rce Roc *Sox.*

Horticultural Pole. All Anb Bai Brt Btl Bkt Bel Bgg Brk Bdg Bri Bng Brb Bur Brr CE C&B Col Cox Crg Crs Cur Drr Dun Ebr Emr Evr Ewg Fmr Fqr Fax Fld Gls Gdn Gra Grn Gry TG Hns Hrm Hrn Haw Hen H&C H&P Iml Jer J&M J&S *Kei* Ken Kos Lan Lea Mnd Mgd Mas May JCM JMM McK Mhl Min MV Mzy Neb Nol OV Pac HP Prn Pne Poo Pot Pri Raw Ren Rce Rs RP Sal S&F Shw S&O Stw S&W Tem Thr Thb Trm T&B Vl Wea Web Wer Wyg Y&H.

Similar names. London Horticultural Pole, Crosby's Horticultural Pole, King Horticultural Pole, Carmine King Horticultural Pole, Speckled Horticultural Pole, Speckled Horticultural Cranberry Pole, Horticultural Cranberry Pole, Mammoth Horticultural Cranberry Pole, Mammoth King Horticultural Pole, Mammoth Podded Horticultural Pole. Mammoth Carmine Podded Horticultural Pole, Childs' Mammoth Podded Horticultural Pole, Worcester Carmine Podded Horticultural Pole, Carmine Podded Horticultural Pole.

Seedsmen's synonyms. *Bird Egg*, Fld. *Cranberry*, Brt Bkt Bur Ren Rce RP, etc. *Housewives' Delight*, Hbt. *October Bean*, Gdn. *Red Speckled Cut Short*, Anb. *Speckled Cranberry*, Cox Cur Drr Hen Mhl Raw, etc. *Wren's Egg*, Bdg Bur CA Gdn Ham JMM.

Improved Dutch Case Knife, Improved Dutch Runner, Improved Kentucky Wonder, Improved Old Homestead, Improved Southern Prolific, Improved White Creaseback. Entered as *Dutch Case Knife, Dutch Runner*, etc.

Indian Chief. Brk Bdg Brb *CE* Cle Dun Ewg Fqr Fax GH Gra Hrm Hrn J&S K&W Lam Min Ptt Poo Por Pug Raw Rce Rog Rs S&R S&F SB W&D.

Seedsmen's synonyms. *Algerian*, Bdg. *Black Algerian Wax*, Ggy. *Black Butter*, Ewg Gra Ren. *Black Wax*, Brk Cle Dun GH J&S Rs, etc. *German Black Wax*, Ptt Rce. *German Butter*, W&D. *Tall Black Wax*, Lam Por Pug Raw S&R SB. *Tall German Wax*, HP. *Tall Wax*, Min. *Wax*, Fqr.

Kentucky Wonder. Alx All Ar Bai Bak Brd Brt Btl Bkt Bel *Ber* Bow *Bgg* Brk Bri Brn Bng Buc Bui LB Brb Bur Brr *Cam* CE Cle Cox Crg Crs Cur DD Drr Drm Elt *Emr* Evr Fmr Fer *Fld* Ger GH Grn Gry *Gfg* G&T Ham Hde Hrn Hst H&C *Hly* Hop H&P Iml Jac RHJ J&M J&S Jns Ken K&F Kg Lam Lan Lea Lnr Liv Loh Mgd *PM* Mau May JCM JMM McK McM *Mel Mhl* MV M&S Neb *Nol* NK OV Pac Pg *JMP* Prn Pnt Ptt Por Pot Pug Ren Rce Roc Rog Rs RP S&R SC Shw Shm Sim Sox SB Tem Tex Thm Thr *Tlh* Trm T&B Vl Vau Web Wer *Wlt* Wd Wdr WS.

Similar names. Improved Kentucky Wonder, Archias Improved Kentucky Wonder, Black Kentucky Wonder.

Seedsmen's synonyms. *Old Homestead*, Brt Bkt Elt J&S Raw Wd, etc. *Asparagus*, Lam. *Texas Pole*, Jac.

King Horticultural Pole. Brr Emr Fqr *Gdn* Gry H&C JMM Rce S&F.

Similar names. See *Horticultural Pole.*

Seedsmen's Synonyms. *Mammoth Horticultural*, H&C.

Large White Marrow. Btl.

Seedsmen's synonyms. *Corn Hill*, Btl.

Lazy Wife. Alx Anb Ar Brd Brt Btl Bkt Ber Bdg Bri Brn Buc Bui LB Bur CE Chl Cle Col Crg Crs DD D&C Drw Drm Dun Ebe Eic RE Evr *Fqr* Fst Fld Frd Ger Gls Gdn GH Gra GN Grn G&T Grw TG Hns Ham Hde Hrn Hst H&C Hly Hlm H&P Iml Iow *MWJ* J&M J&S Kg Lan Lnr Liv JL Lon Mgd Mns Mau May JCM JMM *McK* McM *Mel* Mic Mhl Mls *MV* Nef Nol NI NK OV Pac Pks HP *JMP* Pir *Por* Pug Qkr Rtk Raw Ree Ren Rce *S&R* SC *S&F* Shw S&O Shm Sim *Sox* Stk SB S&W Tat Tem Tex TB Thr *Tlh Tpk* Trm Vl Vau Wer Wdr Wyg Yng.

Similar names. Hammond's Lazy Wife, Yellow Lazy Wife, Golden Lazy Wife.

London Horticultural Pole. Bow Brn Bui Eas Fer GH Hrs K&W Lam *Lnr* JL Loh Pg Ptt Por Pug Rog S&R Sox SB Tpk Vk Vin.

Similar names. See *Horticultural Pole.*

Long White Dutch Case Knife. Web. For similar names see *Dutch Case Knife.*

Seedsmen's synonyms. *Cranberry,* SB. *Speckled Cranberry,* Bow Fer JL Lam Ptt Vk, etc. *Wren's Egg,* Bui Ggy Vk.

Mammoth Carmine Podded Horticultural Pole. Brb CF Fqr Ggy Rog Wdr.

Similar names. See *Carmine Podded.*

Mammoth Horticultural Cranberry Pole. C&J.

Similar names. See *Cranberry Horticultural Pole.*

Mammoth King Horticultural Pole. Hrm Thr.

Similar names. See *Horticultural Pole.*

Mammoth Podded Horticultural Pole. Buc Dun Fer Frd H&C Iow *Lnr* Liv Pne Tem WS.

Similar names. See *Horticultural Pole.*

Seedsmen's synonyms. *Hampden,* Fer. *Mugwump,* Fer. *Worcester,* Fer. *King Horticultural,* H&C.

Maryland White. G&T.

Milan. Vin.

Missouri White Cornfield. *K&F.*

Monstrous Podded Southern Prolific. Lan.

Similar names. See *Southern Prolific.*

Mont d'Or Wax. Bdg Dun Fqr Gry Ken MV Mzy S&F *Sox* Thr Wer.

Seedsmen's synonyms. *Golden Butter,* Brk Bdg Dun Fqr Gry Hen, etc. *Golden Cluster,* MV Wer.

Noxall. *Man.*

Old Homestead. All Alr Btl Bkt Bel *Ber* Bow *Bgg* Brk Buc Bui Bur Brr *CE* Cle Col CF Cox Cur DD Drr *Drm* Ebr Elt *Emr* Fmr Fqr Frd Ger GH Grn Ham Hde Hrn Hst *Hen* H&C *Hly* Hlm Hop Hse Iow J&S Kg Lam Lan Lea Lnr Loh Lon Mgd Man *PM* May JMM M&S *Nol* OV JMP Ptt Poo Qkr Raw Ree Roc Rs SC S&F Shw S&O Shm Sim S&H S&W Tem *Thm* AGT *Tpk* Vau Vk Wer *Wit* Wd Wdr.

Similar names. Improved Old Homestead.

Seedsmen's synonyms. *Kentucky Wonder,* Bui Bur Drr Fer Thr Vk, etc. *Asparagus,* Lam.

Onondaga. Ebe.

Ornamental Scarlet Runner. Brk. For similar names see *White Runner.*

Oval Seed Field Corn. TB. For similar names see *Corn Hill.*

Painted Lady. Ewg Gra Pri *Ren* SB.

Philips' American Sickle. Entered as *American Sickle.*

Powell's Prolific. CCo Cok Liv. For similar names see *Southern Prolific.*

Red Cranberry. Brk Cle Dun Emr Fax GH Grn Gry Hrm Hrn K&W Pne Thm.

Similar names. See *Cranberry.*

Red Speckled. Crs Mns *Ren* Ree RP Shw SB Yng.

Seedsmen's synonyms. *Corn Hill,* RP. *Cut Short,* SB.

Red Speckled Cut Short. Anb Ar Buc Crs Evr Fer H&P Iml K&F Lan Liv Lnr Loh Mns *Man* Neb HP *Pnt* Rce Shw *Vl* Web.

Seedsmen's synonyms. *Corn Hill*, Buc Crs Fer Liv HP Rce, etc. *Horticultural*, Anb.

Red Speckled Oval Seeded Cut Short Corn Field. CA Pnt.

Similar names. See *Corn Hill*, *Cut Short*.

Royal Corn. Liv.

Salzer's Case Knife, Salzer's Giant Black Wax Pole. Entered as *Case Knife* and *Giant Black Wax Pole*.

Scarlet Flowering Runner. Bdg. For similar names see *White Runner*.

Scarlet Runner. All Ans Bai Brd Brt *Btl* Bkt Bow *Bgg* Bdg Bri Brn Bru Bng Buc Bui Bur Brr C&J *CE* Cle C&B CF Cox Crs Dlw D&H DD *Drm* Dun Ebe Elt RE Ewg Fqr Fst Fax Frd Ger Gdn Gra Gng Grn Gry Grw TG Hrm Hrn Hrs Hen *H&C* H&P Iow RHJ J&S K&W Ken Kos Lam Lnr Liv JL Loh Mas May JCM JMM McK Mhl MV M&S Mzy Neb Nef Nol NK Pac Pks HP Pir Prn Pne Ptt Poo Por Pot Pri Pug Qkr Ren Rce Roc Rog Sal S&R SC S&F S&O Shm Sim Sox SB S&H S&W Tat Thr Til T&B Vau Vk Vin Wea W&D Wer Wd Yng Y&H.

Similar names. See *White Runner*.

Schaetzle's French. Ebr.

Seek No Further. Lan.

Sickle. Mel.

Similar names. White Sickle, Philips' American Sickle, American Sickle.

Snake. Ger.

Seedsmen's synonyms. *Asparagus*, Ger.

Southern Creaseback. GH Hst Shw *Thr*. For similar names see *Creaseback*.

Southern Prolific. Alx Ar Bai Bak Bou Bow *Brn* Bui Bur *C&M* *CE* Cle Cox Crg Crs Drm Eic Emr Fst Fer Gdn GH Grn *Gfg* G&T Hde *Hly* Hlm J&S Kg Lan Lnr Liv May JCM JMM McM Mel MV *Nol* OV Pac Pnt Qkr Ree Rce Rog Sal SC Shw *Sox* Spf Stk Tex Thm Thr *Tpk* Trm Wlt Wd WS Wyg.

Similar names. Improved Southern Prolific, Monstrous Podded Southern Prolific, Powell's Prolific, Texas Prolific.

Southern White Creaseback. Bui. For similar names see *Creaseback*.

Seedsmen's synonyms. *Fat Horse*, Bui.

Speckled Cranberry. Anb Bai Bow Brk Brb C&B Col Cox Crs Cur Drr Drm Ebe Emr Fmr Fer Ger Hrm Hrs Hrv Hen Hse H&P Iml Ken Lam Lea Liv JL Loh Mnd Mgd Mas McK Pug Mhl MV Mzy Neb Nol OV Pac Pg HP Ptt Pri Raw Rs Shw S&O *Sox* S&W Tat Thr Thb *Tpk* Vl Vk Vin Wea Wyg.

Similar names. See *Cranberry*, *Horticultural Pole*.

Seedsmen's synonyms. *Bird Egg*, Liv. *Horticultural*, Cox Cur Drr Hen Raw Thr, etc. *London Horticultural*, Bow Fer JL Ptt Vk Vin, etc. *Wren's Egg*, Ebe JMM Vk.

Speckled Horticultural Cranberry Pole. Nef.

Similar names. See *Cranberry*, *Horticultural Pole*.

Speckled Cut Short. Gdn G&T Hrn J&S *Nol* *Sox* Spf Thr.

Seedsmen's synonyms. *Corn Hill*, G&T Hrn J&S Spf Thr. *Corn Field*, Gdn.

Speckled Horticultural Pole. Blg G&T PM.

Similar names. See *Horticultural Pole*.

Seedsmen's synonyms. *Cherry Pole*, Blg PM. *Wren's Egg*, G&T.

Sunshine Wax. Bkt Bur Fqr McM Rim.

Similar names. Burpee's Sunshine Wax.

Tall Black Wax Pole. Bow Lam Por Pug Raw S&R SB.

Similar names. See *Black Wax Pole*.

Seedsmen's synonyms. *Indian Chief*, Lam Por Pug Raw S&R SB.

Tall German Black Wax Pole. *Alx* Cur CA Fmr Hly J&M Thm Wlt.

Similar names. See *Black Wax Pole*, *German Wax Pole*.

Tall German Wax Pole. Lan McM Min HP.

Similar names. See *German Wax Pole, Black Wax Pole.*

Seedsmen's synonyms. *Indian Chief,* HP.

Tall July Runner. Thr. For similar names see *White Runner.*

Tall Mont d'Or. Cle Prn.

Seedsmen's synonyms. *Golden Butter Wax Pole,* Cle Prn.

Tall Wax. Min. For similar names see *Giant Wax Pole.*

Seedsmen's synonyms. *Indian Chief,* Min.

Tall Sioux. *Fld* MV Sox.

Tennessee White Corn Hill. M&S. For similar names see *Corn Hill.*

Tennessee Wonder. Lan.

Similar names. Eastern Wonder.

Texas. Gdn Jac.

Similar names. Texas Prolific.

Seedsmen's synonyms. *Kentucky Wonder,* Jac.

Texas Prolific. Hst MWJ. For similar names see *Texas, Southern Prolific.*

Titan Runners. Gra. For similar names see *White Runner.*

Transylvania Butter. M&S. For similar names see *Butter Pole.*

Seedsmen's synonyms. *Best of All,* M&S.

Vair's Asparagus. Ren. For similar names see *Asparagus.*

Wax Pole. Fqr Kei. For similar names see *Golden Cluster.*

Seedsmen's synonyms. *Indian Chief,* Fqr.

White Case Knife. K&W Pac S&F. For similar names see *Dutch Case Knife.*

White Cherry. G&T. For similar names see *Cherry.*

White Cornfield. DD SC Yng. For similar names see *Corn Hill.*

Seedsmen's synonyms. *White Corn Hill,* SC.

White Corn Hill. SC.

Seedsmen's synonyms. *White Corn Field,* SC.

White Creaseback. Ans Bkt Bow Bri *Brn* LB Bur CE Cle Col Crg D&C Drr Evr Fer Hde Hrn H&P J&S Jns K&F Kg Lam Lnr Liv Mgd Mau May JCM JMM McM Min MV M&S *Nol* NK Pac HP Pnt Por Qkr Ree Rce Rog S&R S&O Shm Sox Spf *Tem* Tex T&B Vl Vin *Web* Wdr.

Similar names. See *Creaseback.*

Seedsmen's synonyms. *Best of All,* Bkt Col Drr McM Old. *Fat Horse,* Bri Hde J&S M&S Spf K&F Pnt.

White Dutch. Ar Brb Lan.

Seedsmen's synonyms. *Case Knife,* Brb Lan.

White Dutch Case Knife. Anb Btl *Bgg* Bdg Bru Buc Bur *CE* Col Drr Drm Gdn Hde Hrm *Hly* Hlm Iow Jac RHJ J&M Ken Kos Liv Min OV JMP Qkr Rce Roc RP SC Shm Sie Stw Thm *Tpk* Vl Wea Yng.

Similar names. See *Dutch Case Knife.*

White Dutch Runner. Ans Brk Bdg Bur Brr C&J *CE* Cle CF Crs Drr Dun Ebe Elt Emr *RE* Hrm Hrn Hse K&W Mas May MV Ptt Pri Rce Rog *Sox* SB S&W Thr Wer Wdr.

Similar names. See *White Runner.*

White Horticultural. Fqr.

White Runner. All Brt Bdg Buc Ewg Fqr Gra Grn H&P Kei Lnr Liv Loh Pks Prn Pot *Ren* Roc S&F Wea.

Similar names. White Dutch Runner, Giant White Runner, Improved Dutch Runner, Scarlet Runner, Ornamental Scarlet Runner, Scarlet Flowering Runner, Tall July Runner, Titan Runners, Dutch Runner.

White Seeded Butter Pole. Dlw. For similar names see *Butter Pole.*

White Sickle. Fer Lan *Lnr Rce Spf.* For similar names see *Sickle.*

White Zulu. Bur Brb.

Similar names. Burpee's White Zulu.

Willing's Pride. Sal.

Worcester. All Raw Wea.

Similar names. Worcester Carmine Podded, Worcester Mammoth Horticultural.

Seedsmen's synonyms. *Hampden*, Fer. *Mammoth Podded Horticultural*, Fer. *Mugwump*, Fer.

Worcester Carmine Podded. Grn.

Similar names. See *Worcester*, *Horticultural Pole.*

Worcester Mammoth Horticultural. Rs. For similar names see *Worcester.*

Wren's Egg. Bdg Bui Bur Cur CA Ebe *Evr* Gdn G&T Ham Hlm J&S *Mns* May McM JMM M&S Wdr.

Seedsmen's synonyms. *Cranberry*, Bur Ham. *Horticulural*, Bur CA Bdg Gdn J&S May, etc. *Horticultural Cranberry*, Hlm. *London Horticultural*, Bui Ggy Vk. *October Bean*, Gdn. *Speckled Cranberry*, Ebe JMM Vk. *Speckled Horticultural*, G&T.

Yard Long. Bai Bkt Bdg Bri Bru Bur Col DD RE Fmr Iow Kei Liv M&S Pks Sal Shw Sim.

Similar names. French Yard Long, Yard Long Stringless Green Pod.

Seedsmen's synonyms. *Asparagus*, Bdg Bru Kei S&F Sim. *Cuban Asparagus*, Bur Col Liv Pks Ren. *French Asparagus*, Bkt DD. *Japanese Asparagus*, M&S.

Yard Long Stringless Green Pod. Mel. For similar names see *Yard Long.*

Yellow Lazy Wife. Ans. For similar names see *Lazy Wife.*

BEAN (POLE LIMA BEAN).

Black Lima. Hse Rce.

Similar names. Early Black Lima.

Bliss's Extra Early. Raw. For similar names see *Extra Early.*

Seedmen's synonyms. *Early Jersey*, Raw.

Buckbee's Golden Lima, Buckbee's King of the Garden. Entered as *Golden Lima* and *King of the Garden.*

Butter. Ar Btl CA Eic Grw TG Hde MWJ K&F Pnt Stk Wd WS Yng.

Similar names. King's Improved Butter, King's Butter.

Seedsmen's synonyms. *Extra Large Lima*, CA. *Large Lima*, Grw MWJ. *Large White Lima*, Ar Btl Hde Pnt. *Siera*, Bur. *Small Carolina*, Bur. *Small Lima*, Wd. *Southern Willow Leaf Sewee*, Stk. *Willow Leaf Sewee*, Eic.

California Lima. Lan.

Carolina. Btl Bur Cle CA Eic Fer Gdn GH Hns Hlm Jac MWJ Lan Min Shw Stk Tat Thm Tex Wlt.

Similar names. Small Carolina, Carolina Sewee.

Seedsmen's synonyms. *Sewee*, Eic Gdn Lan MWJ Tat. *Siera*, Cle CA Fer Hlm Tex Thm. *Small Butter*, Eic. *Small Lima*, Hns Shw Tat. *Small White Lima*, CA Fer Hlm Tex Thm.

Carolina Sewee. Bui *Shw* Wlt. For similar names see *Carolina*, *Siera.*

Seedsmen's synonyms. *Siera*, Bui. *Small Lima*, Wlt.

Challenger. Bai Bkt Bow Brk Bdg Bui Bur *CE* Cle CF Emr Evr Fqr Fst Fer G&T TG *H&C* Hlm J&S Lan Liv Mnd May Mel Mzy Nol Ree Rce S&F S&W Thr Wdr W&D.

Seedsmen's synonyms. *Potato*, J&S Wdr. *Potato Leaf*, Bur. *Dreer's Improved*, Bui Bur Bkt G&T Hlm Nol, etc.

Champion. May.

Similar names. May's Champion.

Dreer's Improved Lima. Entered as *Dreer's Lima.*

Dreer's Lima. Alr Ar Bai Brt Bkt Blg Bow Brk Bdg Bgs Bng Bui Brb Bur Brw *CE* Cle C&B CF Crs Cur D&H Drr Drw Drm Elt Emr RE Evr Fqr Fst Fax Gry G&T TG Hen *H&C* Hlm *MWJ* RHJ J&S Kei Mnd Lam Lnr Liv JL Mnd Mns Mau May JMM Mhl MV Mzy Neb Nef Nol NK OV Prn Ptt Pri Raw Ren Ree Rs RP Sal S&F Shm Sox S&W Thr *Tpk* Vl Vau Wat Wea W&D Wdr Y&H.

Similar names. Dreer's Improved Lima.

Seedsmen's synonyms. *Potato*, J&S. *Potato Leaf*, Bur. *Challenger*, Bui Bur Bkt J&S Liv S&F, etc.

Early Black Lima. Buc Bur D&C Mhl Roc. For similar names see *Black Lima.*

Early Dawn. Liv.

Early Golden Lima. Ham. For similar names see *Golden Lima.*

Early Jersey Lima. *Bel* Bgs Brn *Bur* C&J *CE* Crs Drr *Dun* Ebe Elt Emr Gls Hrv Haw Jns *Lnr* Liv Loh MV Mzy Ree Rs *Sox* S&W Thr Til Vau Wea Wdr.

Similar names. See *Jersey Lima.*

Seedsmen's synonyms. *Bliss's Extra Early*, Raw.

Early Large White Lima. Bkt Bri Buc Brw CA DD G&T TG H&C PM JCM Pir Roc Wyg.

Similar names. See *Large White Lima.*

Early Leviathan. Hen.

Similar names. Henderson's Early Leviathan.

Early Lima. Cok. For similar names see *Extra Early.*

Seedsmen's synonyms. *Frost*, Ggy. *Siera*, Ggy.

Extra Early. Brd Brt *Bgg* Bdg Fld Pir Pne Rt *Tlh* Wer

Similar names. Bliss's Extra Early, Improved Early, Salzer's Improved Early, Salzer's Early, Early Lima.

Extra Early Jersey Lima. Bgg Bng Bui Bur Brr Cle C&B CF Cur DD Drm Fqr Fst Frd GH G&T TG Hen Hlm Iml MWJ J&S Lan Lnr JL Mnd Man *JCM* Mhl M&S Neb Nol OV Pg Pnt HP Pri Pug SC Sie Sox Stw Thb *Tpk* Vk W&D Y&H.

Similar names. See *Jersey Lima.*

Extra Early Large White Lima. Gdn Jac.

Similar names. See *Large White Lima.*

Extra Large White Lima. Cle CA *G&T* Liv JMM Min HP SC Wdr.

Similar names. See *Large White Lima.*

Seedsmen's synonyms. *Butter*, CA. *Mammoth White Lima*, HP.

Florida Butter. Hst.

Ford's Extra Large. MWJ. For similar names see *Ford's Mammoth.*

Seedsmen's synonyms. *King of the Garden*, MWJ.

Ford's Extra Large Mammoth. Blg. For similar names see *Ford's Mammoth.*

Ford's Mammoth. Alr Brd Bkt Bui Brr *CE* Cle CF Drr Frd Gdn Gry *G&T* Iml J&S Lnr *Mgd* Mhl Mns Nol M&S Neb Ree Shw *Spf* Vau W&D Wd Wdr WS.

Similar names. Ford's Extra Large Mammoth, Ford's Extra Large, Godden's Mammoth, Jersey Mammoth, Salem Mammoth, Improved Salem Mammoth, Mammoth.

Godden's Mammoth. Gdn. For similar names see *Ford's Mammoth.*

Golden Lima. Buc Roc.

Similar names. Buckbee's Golden Lima, Hammond's Early Golden Lima, Early Golden Lima.

Hammond's Early Golden Lima. Entered as *Early Golden Lima.*

Henderson's Early Leviathan. Entered as *Early Leviathan.*

Improved Early Lima, Improved Extra Large White Lima, Improved Large White Lima, Improved Salem, Improved Salem Mammoth. Entered as *Early Lima*, *Extra Large White Lima*, *Salem*, and *Salem Mammoth.*

Improved Lima. Hnt Vk.

Similar names. Wood's Improved Lima, Moore & Simon's Improved Lima, Moore & Simon's Lima, Wood's Lima.

Jersey Lima. May TB.

SIMILAR NAMES. Early Jersey Lima, Extra Early Jersey Lima, Large Jersey Lima, Michell's Large Jersey Lima, Jersey Mammoth.

Jersey Mammoth. Fst. For similar names see *Ford's Mammoth*, *Jersey Lima*.

King of the Garden. Alr Ar Brd Brt Btl Bkt Blg Bow Bgg Brk Bdg Bgs Bri Brn Bng Buc Bui Bur Brr Brw C&J C&B CE Cle C&B Col CF Crs Cur DD D&C Drr Drw Dun Ebe Ebr Elt Emr Evr Fmr Fqr Fst Fer Frd Gls Gdn GH GN Ggy G&T TG Ham Hde Hrn Hrs H&C *Hly* Hlm Hop Hse H&P Iml Iow MWJ J&M J&S Jns Kg Kos Kra Lan Lnr LB Liv Loh Lon Mnd Mgd PM Mns Mau May JCM JMM McM Mhl Mls MV M&S Mzy Nef Nol NK OV Pac Pg *JMP* Prn Ptt Pri Qkr Raw Ree Rce Ren Rim Rt Rs Sal Shw Shm Sie Sox Spf S&H S&W Tat Tem Tex TB Thm Thr Til *Tpk* Trm T&B Vl Vau Vk Wat Wea Wer Wdr WS Wyg Yng.

SIMILAR NAMES. Buckbee's King of the Garden.

SEEDSMEN'S SYNONYMS. *Ford's Extra Large*, MWJ. *Large White Lima*, Alx.

King's Butter. Kg.

SIMILAR NAMES. King's Improved Butter.

King's Improved Butter. Entered as *King's Butter*.

Large Evergreen Lima. M&S.

Large Jersey Lima. Lan McM Mhl Stw. For similar names see *Jersey Lima*.

Large White Lima. Alx Anb Ar Bai Brd Btl Blg Bou Bgg Brk Bdg Bgs *Brn* Bru Bng Bui Bur *Cam* C&J CE C&B CF Cox Crg Crs Cur Dlw Eie Elt Emr RE Evr Ewg Fqr Fst Fax Fer Ger GH Gra Gry Gfg G&T Grw TG Hns Hde Hrm Hrs Hrv Hen *H&C Hly* Hlm Hop H&P Iml MWJ J&M Kei K&W Ken K&F *Kg* Kos Kra Lam Lan Lnr LB JL Loh Mnd Man Mns Mas May *JCM* Mic Min MV Mzy Neb Nef NI NK OV Pac JMP Prn Pnt Por Pot Pri Qkr Raw *Ren* Rim Rs RP *Sal* S&R S&F S&B Shw S&O Sie Sim Sox Spf Stk SB Stw S&H S&W Tat Thr Thb Til Tpk Trm T&B Vl Vau Vk Vin Wea Web W&D Wer Wlt Wd Wdr WS Yng Y&H.

SIMILAR NAMES. Extra Large White Lima, Early Large White Lima, Extra Early Large White Lima, Improved Large White Lima, McCullough's Extra Large White Lima, Improved Extra Large White Lima, Rimby's Improved Large White Lima.

SEEDSMEN'S SYNONYMS. *Butter*, Ar Btl Hde Pnt Grw MWJ. *King of the Garden*, Alx.

McCullough's Extra Large White Lima. Entered as *Extra Large White Lima*.

Mammoth. Chl.* For similar names see *Ford's Mammoth*.

May's Champion. Entered as *Champion*.

Michell's Large Jersey Lima. Entered as *Large Jersey Lima*.

Moore & Simon's Improved Lima. Entered as *Moore & Simon's Lima*.

Moore & Simon's Lima. M&S. For similar names see *Improved Lima*.

Old Connecticut Garden. *Brr*.

Potato Lima. Bng Bur C&B J&S Wdr Y&H.

SEEDSMEN'S SYNONYMS. *Challenger*, Bur J&S Wdr. *Dreer's Improved*, Bur J&S.

Prolific Thick Green Lima. M&S.

SIMILAR NAMES. Walter's Prolific Thick Green Lima.

Rimby's Improved Large White Lima. Entered as *Large White Lima*.

Salem. J&S Mau. For similar names see *Salem Mammoth*.

Salem Mammoth. Bui Gdn MWJ M&S.

SIMILAR NAMES. Improved Salem Mammoth, Improved Salem, Salem.

Salzer's Early. Sal. For similar names see *Extra Early*.

Salzer's Improved Early. Entered as *Salzer's Early*.

Scroll. Jac.

Seibert. Brw S&F. For similar names see *Seibert's Early*.

Seibert's Early. Brd Buc *Brr* C&J *CE* CF Drr Ebe Evr *Fqr* Fer Frd Gls Ggy H&C H&P Iml J&S Jns Lnr Liv Loh Mns JMM Mau Nol Old Pg HP Pri Raw Ree Roc Rs S&H Tex *Vl* Vk Wdr.

Similar names. Seibert's Large Early, Seibert's Extra Early, Seibert.

Seibert's Extra Early. *JMM* Mhl M&S Ptt *Shw* Tem. For similar names see *Seibert's Early.*

Seibert's Large Early. Bur Gdn *TG.* For similar names see *Seibert's Early.*

Sewee. Alx Bou *Cam* Eic Gdn MWJ Lan Stk Tat. For similar names see *Sieva.*

Seedsmen's synonyms. *Carolina,* Eic Gdn Lan MWJ Tat. *Small Butter,* Eic. *Small Lima,* Alx Tat.

Shallcross Market Queen. J&S.

Shotwell's Improved Thick Lima. Entered as *Shotwell's Thick Lima.*

Shotwell's Thick Lima. J&S.

Similar names. Shotwell's Improved Thick Lima.

Sieva. Brk Bng Bui Bur *CE* Cle CF Crs Cur CA DD Drr Ebr Emr Fqr Fax Fer GH Gry Hrm Hde Hen *H&C* Hlm K&F *Lnr* May Mhl Pnt Ptt Pot Raw Ree S&F *Spf* Tex Thm Wea Wer.

Similar names. Sewee, Carolina Sewee, Willow Leaf Sewee, Southern Willow Leaf Sewee.

Seedsmen's synonyms. *Butter Bean,* Bur. *Carolina,* Cle CA Fer Hlm Tex Thm. *Carolina Sewee,* Bui. *Early Lima,* Ggy. *Frost,* Ggy. *Small Carolina,* Bur. *Small Lima,* Cur Drr Fqr Hen Mhl Ptt, etc. *Small White Lima,* CA Emr Fer Liv Pnt SC, etc.

Small Carolina. Bur. For similar names see *Carolina.*

Seedsmen's synonyms. *Butter Bean,* Bur. *Sieva,* Bur.

Small Lima. Alx Brk Bur *Cam CE* CF Crg Crs Cur Drr Ebr Fqr Fax Gry Hns Hst Hen K&W *Lnr* Liv May McM Mhl Ptt Pnt Pot Raw Shw Ree SC *Spf* Tat Trm Wea Wlt Wd WS.

Similar names. Small White Lima.

Seedsmen's synonyms. *Butter Bean,* Wd. *Carolina,* Hns Shw Tat. *Carolina Sewee,* Wlt. *Sewee,* Alx Tat. *Sieva,* Drr Fqr Hen Mhl Ptt Raw, etc.

Small White Carolina. *H&C.*

Small White Lima. CA DD Drm Emr Fer Hlm K&F Mnd McM Min Mzy Tex Wer.

Similar names. See *Small Lima.*

Seedsmen's synonyms. *Carolina,* CA Fer Hlm Tex Thm. *Sieva,* CA Fer Hrm Pnt SC Tex, etc.

Southern Willow Leaved Sewee. Stk. For similar names see *Willow Leaf, Sieva.*

Stokes' Evergreen. J&S.

Trucker's Delight. *Hlm.*

Seedsmen's synonyms. *Butter,* Stk.

Walter's Prolific Thick Green Lima. Entered as *Prolific Thick Green Lima.*

Washington Market. Lnr.

Willow Leaf. Buc Bur Brr *CE* Gdn GH Hst MWJ McM Ree Roc *Shw Sim.*

Similar names. Willow Leaf Sewee, Southern Willow Leaved Sewee.

Willow Leaf Sewee. Eic. For similar names see *Willow Leaf, Sieva.*

Wood's Lima. Wd WS.

BEAN (WAX-PODDED BUSH BEAN).

Alexander's Flageolet Wax, Alexander's Valentine Wax. Entered as *Flageolet Wax,* and *Valentine Wax.*

Algerian Wax. Mzy.

Similar names. Black Algerian Wax.

Allan's Imperial Wax. All Frd Ken Ptt Til.

Alneer's Rust Proof Golden Wax. Entered as *Rust Proof Golden Wax.*

Archias' Black Wax. Entered as *Black Wax.*

Beckert's Speckled Wax. All. For similar names see *Speckled Wax.*

Bell's Improved Kidney Wax. Entered as *Kidney Wax.*

Bell's Prolific Rustless Wax. Bel.

Bismarck Black Wax. *CE* Ebr MV Ree S&O Sox Thr Wer.

Similar names. See *Black Wax.*

Bismarck Wax. Bui Fmr Hlm. For similar names see *Black Wax.*

Black Algerian Wax. Grn. For similar names see *Algerian Wax.*

Black Eyed Wax. Bai Bow Bgs Buc *CE* Evr Fer Gng Grn Hlm Hop Kei Lam Lnr Mnd May McK MV Pg Por Qkr Ren Ree Roc S&R S&O Sox Tat Vl Web Yng.

Similar names. Early Black Eyed Wax.

Black Wax. Alx Ar Bai Brd Btl Bdg Bru Buc Brb Brr C&B D&H Del *Drm* Ebe Elt Emr RE Ewg Fqr Fax *Fld* Ger Gls GH Gry Hns Ham Hrm Hrs Hen Hbt Hop Hme H&P Iow Jer J&M Kel K&W Ken Kg Kos Kra Lnr Man Mas JCM JMM *McK* Mhl Mzy Neb Nef NI *Pac Pg* Pir Ptt Pot Rtk Ren Roc Rog Rs RP S&F Shw S&W TB Trm T&B *Vl* Wat Wea W&D Wer Wd Wdr WS.

Similar names. Rust Proof Black Wax, Early Black Wax, Improved Black Wax, Extra Early Black Wax, Henderson's Improved Black Wax, Archias Black Wax, Fuller's Black Wax, Fuller's Ringleader Wax, Bismarck Black Wax, Bismarck Wax, Saddleback Black Wax, Yosemite Black Wax. See also *Challenge Black Wax, Prolific Black Wax, German Black Wax.*

Seedsmen's synonyms. *Butter*, Bru Brr Fqr RE RP T&B, etc. *German Wax*, Wd WS Mhl Rs RP Shw. *Prolific German Black Wax*, Bur. *Cylinder Pod*, Bur. *Prolific German*, Buc Ham Roc.

Bolgiano's Wax. *Blg.*

Brittle Wax. *Bur.*

Buckbee's Rust Proof Golden Eyed Wax, Buckbee's Rust Proof Golden Wax. Entered as *Rust Proof Golden Eyed Wax* and *Rust Proof Golden Wax.*

Burpee's Perfection Wax, Burpee's Saddleback Wax, Burpee's Twentieth Wax, Burpee's Brittle Wax. Entered as *Perfection Wax, Saddleback Wax, Twentieth Century Wax*, and *Brittle Wax.*

Butter Wax. Bgs Bru Buc Brr C&B Cox Crs D&H RE Fmr Fqr Fle H&P Jer McK Mzy *Pac* Pir Ptt Pri Roc Shm Sim Stk T&B Vin Wer.

Seedsmen's synonyms. *Black Wax*, RE Fqr H&P RP Wer, etc. *German Black Wax*, J&S Cox Fmr. *German Wax*, RP Pri Vin. *Early Black Wax*, Crs. *Golden Wax*, Pir. *Improved Golden Wax*, McK. *Improved White Wax*, Roc. *Prolific Black Wax*, Ree. *Prolific German Black Wax*, Bgs. *White Wax*, Bru Vin.

Cabbage Wax. Wd.

Seedsmen's synonyms. *Crystal White Wax*, Wd.

California Black Wax. *Tat.*

California Rust Proof Wax. M&S *Nol.* For similar names see *Rust Proof Wax.*

Challenge Black Wax. All Anb *Bak* Brd Btl *Blg* Bgg Bra Brk Brn Brw *CE* Chm Dlw *D&H* Emr Evr *Fmr* Fer Fld Gls GH Ggy TG Hde Hbt Iml Jns Kra Lam Lnr LB Liv Loh May MV NK OV Old Pnt Ptt Qkr Ree Rog S&O Shm Sox Tex Thr AGT Vl Wdr Vau Wyg.

Similar names. Early Challenge Black Wax, Extra Early Challenge Black Wax. See also *Black Wax, Prolific Black Wax, German Black Wax.*

Challenge German Black Wax. *Bur.*

Similar names. See *Challenge Black Wax.*

Champion Wax. Tat.

Similar names. Golden Champion Wax.

Crimson Flageolet Wax. *Alx* Bui Cle RE Gra Pir Rtk Shw Web.

Similar names. See *Flageolet Wax.*

Seedsmen's synonyms. *Scarlet Flageolet*, Pnt.

Crystal Wax. Brr Drm Gra Hrs Kei Lan NI Pir Prn Rog RP.

Similar names. Crystal White Wax, Early Crystal Wax.

Crystal White Wax. Bdg *Brn* Buc Bui Bur Brr *CE* Cle Fmr Fst Fer Ggy Hrn Hst H&C H&P LB Liv May McK Min *Pac* Ree Roc Sal Shm Sox SB Trm T&B Vl Wd.

Similar names. See *Crystal Wax.*

Seedsmen's synonyms. *Ancient American*, Bur. *Cabbage Wax*, Wd.

Currie's Improved Rust Proof Wax. Entered as *Currie's Rust Proof Wax.*

Currie's Rust Proof Black Wax. Brk CE CF Emr Fst Frd GH G&T Hme J&S Ken K&F May M&S NK Pnt JMP Qkr Rog Rs Thr W&D.

Similar names. See *Currie's Rust Proof Wax.*

Currie's Rust Proof Golden Wax. Bng Buc Bur Koe Kra Lnr Mns HP Prn Wer.

Similar names. See *Currie's Rust Proof Wax, Golden Wax.*

Currie's Rust Proof Wax. Alx All Ar Brt Btl *Bel* Blg Bow Bgg Bra Bri Brn Brb Brr Cam Cle C&B Crg Cur CA Drr *Drm* Dun Ewg Fer Gra Grn Gry TG Hrm Hst Jac Jns K&W Kg Lan Liv Mnd Man JCM JMM Min MV *Nol* Pg Pnt Ptt Pri Ree Roc S&F Shw S&O Shm Sie Sox *S&H* Tat Thm Til Vk Wea Wd Wdr.

Similar names. Currie's Rust Proof Black Wax, Currie's Improved Rust Proof Wax, Currie's Wax, Currie's Rust Proof Golden Wax.

Currie's Wax. Bkt Fqr. For similar names see *Currie's Rust Proof Wax.*

Cylinder Black Wax. M&S Nol HP Poo.

Similar names. See *Cylinder Ivory Wax.*

Seedsmen's synonyms. *Prolific German Black Wax*, HP.

Cylinder Ivory Wax. Ggy.

Similar names. Cylinder Wax, Ivory Pod Wax, Cylinder Black Wax.

Cylinder Pod Wax. Bkt Bur J&S. For similar names see *Cylinder Ivory Wax.*

Seedsmen's synonyms. *Improved Black Wax*, Bur. *Improved Prolific Black Wax*, Drr. *Prolific German Black Wax*, Bur. *Prolific German*, Bkt J&S.

Darch & Hunter's Monarch Wax. Entered as *Monarch Wax.*

Date Wax. Bgs Lnr.

Davis Early White Kidney Wax. Crs. For similar names see *Davis Wax.*

Davis Kidney Wax. Brd Brt Btl Bkt Blg Brk Bri Brn Brb Brw CE Cle CCo Col DD *Drm* Dun Evr Fmr Fqr Gls Gdn GH Ggy Grn Gry Hns *Hra* Hrv Hly *Hlm* H&P J&S Jns Ken Kg Kos Lnr Lon Mgd *PM Mns* Mas Mau May JCM JMM M&S Nol NK Old HP JMP Pri Raw HP Sie Spf S&W Thm Thr Til Trm Vl Vau Wea Wd WS.

Similar names. See *Davis Wax.*

Davis Wax. All Alr Bai Bak Bow Buc Cur Chm Dlw Drr Ebe Eic Fer Frd Grw Iml Iow Kra Lam *Lan* Liv JL *Loh* Neb Pg Pnt Ptt Por Roc Rog Rt S&R Shw Stk S&H Tat *Tem W&D.*

Similar names. Davis White Wax, Davis Kidney Wax, Davis White Kidney Wax, Davis Early White Kidney Wax.

Davis White Kidney Wax. Alx Ans Ar C&J Del Ebr Elt Fld G&T TG Haw Hlm Pir Pnt Ree Rs SC S&F S&O Shm Web Y&H.

Similar names. See *Davis Wax.*

Davis White Wax. Bel Ber Bur CF Emr Gng *Hrs K&W* Mic MV *Pot* Qkr *Rtk* Sox Thb Tlh Vk WS.

Similar names. See *Davis Wax.*

Detroit Golden Wax. RE. For similar names see *Detroit Wax, Golden Wax.*

Detroit Wax. All Brd *Bel* Bow Bgg Bra Bgs Bru Buc *CE* Cle Ebe Emr Ewg Fer Fle GH Gra Ggy Grn G&T Hlm Hme Iml Lam Lan *Lnr* Man May McK MV Mzy NK *Pnt* Por Pri Pug Qkr Ren Rce Roc Rs S&R S&O Sim Sox Stk Thr Til Vau Wdr.

Similar names. Ferry's Detroit Wax, Detroit Golden Wax.

Seedsmen's synonyms. *Rust Proof Wax*, Bow Por Pug S&R Stk.

Dixie Land. CA.

Double Barreled Wax. Lan.

Similar names. Landreth's Double Barreled Wax.

Early Black Eyed Wax. Crs. For similar names see *Black Eyed Wax.*

Early Black Wax. Crs Fle Hly Sim. For similar names see *Black Wax.*

Seedsmen's synonyms. *Butter*, Crs.

Early Challenge Black Wax. Crs. For similar names see *Challenge Black Wax.*

Early Crystal White Wax. Sim. For similar names see *Crystal Wax.*

Early Dolly Varden. CCo.

Early Flageolet Wax. Col. For similar names see *Flageolet Wax.*

Early German Wax. Bui CA. For similar names see *German Black Wax.*

Early Golden Eyed Wax. Brr Chl C&B Crs Ggy Wll.

Similar names. See *Golden Eyed Wax.*

Early Golden Wax. Bel Brr C&J Col Crs Mas Sim.

Similar names. See *Golden Wax.*

Early Prolific Black Wax. *Bur* Col Crs. For similar names see *Prolific Black Wax.*

Early Red Flageolet Wax. Crs. For similar names see *Flageolet Wax.*

Early Refugee Wax. Crs DD *Lnr.* For similar names see *Refugee Wax.*

Early Valentine Wax. *Crs Hrv* W&D. For similar names see *Valentine Wax.*

Early White Wax. Brr *CE* Col Rce Sim Thm. For similar names see *White Wax.*

Eclipse Wax. *D&H.*

Eichling's White Kidney Wax. Eic. For similar names see *Kidney Wax.*

El Dorado Wax. Tat.

Similar names. Tait's El Dorado Wax.

Emperor William Wax. Hlm.

Epicure Wax. M&S.

Everbearing Giant Wax. Hop. For similar names see *Giant Wax.*

Extra Early Black Wax. Shm. For similar names see *Black Wax.*

Extra Early Challenge Black Wax. Bow Buc Bru Por Pug Roc S&R.

Similar names. See *Challenge Black Wax.*

Extra Early Refugee Wax. Blg Frd Gdn Ggy Hrm Hse Jac Rog W&D.

Similar names. See *Refugee Wax.*

Extra Early Valentine Wax. Tat. For similar names see *Valentine Wax.*

Ferry's Detroit Wax, Ferry's Golden Wax. Entered as *Detroit Wax*, and *Golden Wax.*

Fillbasket Wax. Thr.

Flageolet Wax. Alx Ans Bkt Bdg Buc C&B Crg Cur CA Eie Ewg Grn TG Hrv Hen Hme *Lnr* Man Mas Mau May Mic MV Poo Pri Roe Sox Stk S&H Til Vau W&D.

Similar names. Alexander's Flageolet Wax, Early Flageolet Wax, Germain's Improved Golden Eyed Flageolet Wax, Golden Eyed Flageolet Wax, Violet Flageolet Wax, Golden Flageolet Wax, Crimson Flageolet Wax, Purple Flageolet Wax, Scarlet Flageolet Wax, Red Flageolet Wax, Early Red Flageolet Wax.

Seedsmen's synonyms. *Burpee's Perfection Wax*, Mau. *Perfection Wax*, Col. *Scarlet Wax*, Ewg.

Fuller's Black Wax. Ggy Rog. For similar names see *Black Wax.*

Fuller's Ringleader Wax. J&S. For similar names see *Black Wax.*

Germain's Improved Golden Eyed Flageolet Wax. Entered as *Golden Eyed Flageolet Wax.*

German Black Wax. Alr Anb Bou Bri Brn Bng Cam CE Cle CF Cox Crg DD Drm Fmr Fst GH Grn Gfg Grw TG Hrv Hst Haw Hbt H&C Hlm J&S Jns Kei K&F Lan Lea LB JL *PM* Mns Mic Min MV OV Old Pac JMP Rce SC Sox Stw Tat Tem Thm Til Tpk Vau Wat Wea Web Wll Wlt.

Similar names. German Wax, Early German Wax, Improved German Wax, Prolific German Wax, Improved Prolific German Wax, Improved Prolific German Black Wax, Prolific German Black Wax, Improved German Black Wax. See also *Black Wax*, *Challenge Black Wax*, *Prolific Black Wax.*

Seedsmen's synonyms. *Butter*, Cox Fmr J&S. *Prolific German Black Wax*, Alr.

German Wax. Ar Brt Ber Dlw *Eic* Fqr Fer Gdn Jac MWJ RHJ McM Mhl Min Pri Rt Rs RP Shw Stw Tat Vin Wd WS Y&H.

Similar names. See *German Black Wax.*

Seedsmen's synonyms. *White Wax*, Fqr. *Black Wax*, Mhl Rs RP Shw. *Butter*, RP Vin Pri.

German White Wax. Bow *Brn* Grw Hde Kei Pks Por Pug S&R Sox Tpk Web.

Similar names. See *White Wax.*

Giant Podded Stringless Wax. Grn. For similar names see *Giant Wax.*

Giant Red Wax. RE SB. For similar names see *Giant Wax.*

Giant Wax. Gng Grn Kei Min.

Similar names. Salzer's Giant Stringless Wax, Giant Podded Stringless Wax, Simmers' Early Giant Wax, Holmes' Everbearing Giant Wax, Giant Red Wax, Mammoth Wax, Everbearing Giant Wax.

Seedsmen's synonyms. *Mammoth Red German Wax*, Ren.

Golden Beauty. D&H.

Golden Champion Wax. Roc. For similar names see *Champion Wax.*

Golden Crown. *Fer* Grn.

Similar names. Golden Crown Stringless Wax.

Golden Crown Stringless Wax. Thr. For similar names see *Golden Crown.*

Golden Eyed Flageolet Wax. Ger.

Similar names. See *Flageolet Wax*, *Golden Eyed Wax.*

Golden Eyed Wax. All Ans Ar Brt Btl Bkt Bgg Bra Brk Bgs Brn Bng Brb Bur C&J *CE* Cle CF Cok Cox Cur D&H DD Drw Drm Dun Eas Ebe Emr Ewg Fqr Fst Fer Frd Gls Gdn GH Gra Grn Gry G&T TG Hns Hrm Hen H&C Hlm Hse J&S K&W Lnr LB Liv Mnd May JMM MV M&S Nef *Nol* NK Pg JMP Pne Pnt Ptt Poo Por Pot Pri Qkr Raw Rce Rog Rs S&R S&F S&B S&O Shm Sie Sox S&H S&W Tat Thr AGT Til Vau Web W&D Wd WS Yng Y&H.

Similar names. Early Golden Eyed Wax, Leonard's Golden Eyed Wax, Rust Proof Golden Eyed Wax, Buckbee's Rust Proof Golden Eyed Wax, Yellow Eyed Wax, Improved Yellow Eyed Wax, Golden Eyed Flageolet Wax.

Golden Flageolet Wax. Bru Grn. For similar names see *Flageolet Wax.*

Golden Prize. Cok.

Golden Queen Wax. Vin.

Golden Wax. Alx All Alr Ans Bai Bak Brd Brt Btl Bkt Ber Bou Bow Bgg Bra Bgs Bri Brn Bru Bng Buc Bui Bur Brr C&J Cam CE Chl Cle CF Cox Dlw D&C Drm Dun *Eas* Ebe Ebr *Eic* Elt Emr RE *Err* Ewg Fqr Fst Fax Fer Fld Fle Ger Gls Gdn GH Gra Gng Ggy Gry Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hs Haw Hen H&C Hlm Hme H&P Iml Jac MWJ RHJ J&S Jns Ker Kel K&W Ken K&F Kg Kos Kra Lam Lan Lea Lnr Liv JL Loh Mnd. Man PM Mns May JCM JMM McK McM Mic Mhl Mls Min MV Mzy Neb NI NK OV Pac Pks HP JMP Pir Prn Pnt Ptt Poo Por Pri Pug Qkr Rtk Raw Ree Ren Rce Rim Roc Rog Rs RP Sal S&R SC S&F Shw S&O Sie Sox Spf Sqr SB Stw S&H S&W Tat Tex TB Thm Thr AGT Til Tpk Trm T&B Vl Vau Vin Wat Wea Web W&D Wer Wll Wd WS Wyg Yng Y&H.

Similar names. Imperial Golden Wax, Detroit Golden Wax, Early Golden Wax, Improved Early Golden Wax, Ferry's Golden Wax, Salzer's Golden Wax, New York State Golden Wax, Alneer's Rust Proof Golden Wax, Currie's Rust Proof Golden Wax, Buckbee's Rust Proof Golden Wax, Grenell's Rust Proof Golden Wax, Grenell's Improved Rust Proof Golden Wax, Grenell's Improved Golden Wax, Improved Golden Wax, Improved Rust Proof Golden Wax, Young's Improved Golden Wax, Hammond's Improved Golden Wax, Rustless Golden Wax, Rust Proof Golden Wax.

Seedsmen's synonyms. *Butter*, Pir. *Kenney's Rustless*, D&H. *York Wax*, Ggy.

Grenell's Golden Wax. All *Eic* May MV Ptt Sox Stk.

Grenell's Improved Golden Wax, Grenell's Improved Rust Proof Golden Wax. Entered as *Grenell's Golden Wax* and *Grenell's Rust Proof Golden Wax.*

Grenell's Rust Proof Golden Wax. Buc *CE* Fer Grn Hst J&S McM JMP Rce Roc Tem.

Similar names. See *Golden Wax.*

Griswold's Everbearing Wax. Hst.

Hammond's Butter Wax. Ham. For similar names see *Butter Wax.*

Similar names. Hammond's Butter Wax, Maule's Butter Wax.

Hammond's Luscious Stringless. *Ham.*

Hammond's Improved Golden Wax. Entered as *Golden Wax.*

Hodson Wax. *Hrv* Y&H.

Henderson's Improved Black Wax. Entered as *Black Wax.*

Holmes' Everbearing Giant Wax, Holmes' Improved Silver Wax. Entered as *Everbearing Giant Wax* and *Silver Wax.*

Horticultural Wax. Raw.

Imperial Golden Wax. Gfg Iow.

Similar names. See *Allan's Imperial Wax, Golden Wax.*

Imperial White Wax. Mau.

Improved Black Wax, Improved Early Golden Wax, Improved German Black Wax, Improved German Wax, Improved Golden Wax, Improved Prolific Black Wax, Improved Prolific German Black Wax, Improved Prolific German Wax, Improved Rust Proof Golden Wax, Improved Rust Proof Wax, Improved Refugee Wax, Improved White Wax, Improved Yellow Eyed Wax. Entered as *Black Wax, Early Golden Wax, German Black Wax,* etc.

Ivory Pod Wax. *CE* Frd Hnt Lnr May Min Rce RP Sal W&D.

Similar names. See *Cylinder Ivory Wax.*

Jones' Stringless Wax. All *Alr Brn* Buc Col Fqr Fer *Frd Gls Hrn* Iml Jns *Lnr* Liv Mau *Mgd* Mau Neb Pg *Pri* Rce Vau.

Similar names. Jones' Stringless White Wax, Stringless White Wax, Rennie's Stringless Wax.

Jones' Stringless White Wax. Frd Neb Thr Vk *Wd.*

Similar names. See *Jones' Stringless Wax.*

Keeney's Early Rustless Golden Wax. Crs.

Similar names. See *Keeney's Rustless Golden Wax.*

Keeney's Improved Stringless Refugee Wax, Keeney's Pencil Pod Black Wax, Keeney's Pencil Pod Wax. Entered as *Stringless Refugee Wax, Pencil Pod Black Wax,* and *Pencil Pod Wax.*

Keeney's Rustless Golden Wax. All Ans Bow *Bgg* Bru Buc Bur C&B Col CF D&H Del Evr Fer Gra Ggy Grn G&T Grw Hen Hlm Jer J&S *Lnr* May OV Old Pne Pnt Ptt Rce Roc Rog Stk SB S&H S&W Tat Thm Thr.

Similar names. Keeney's Rustless Wax, Keeney's Early Rustless Golden Wax, Keeney's Pencil Pod Wax, Keeney's Pencil Pod Black Wax, Keeney's Improved Stringless Refugee Wax, Rustless Golden Wax, Stringless Refugee Wax.

Keeney's Rustless Wax. Brn Liv *McK* Ren S&B S&O Shm.

Similar names. See *Keeney's Rustless Golden Wax.*

Seedsmen's synonyms. *Golden Wax*, D&H.

Kidney Wax. All Bel *Bgg* Brw *CE* Drm Koe JL Man Mel NI Ptt *Rtk* Rce Sie.

Similar names. Bell's Improved Kidney Wax, Round Pod Kidney Wax, White Kidney Wax, Eichling's White Kidney Wax, Perfection Kidney Wax, Speckled Kidney Wax.

King of the Wax. M&S.

Landreth's Double Barreled Wax, Landreth's Scarlet Wax. Entered as *Double Barreled Wax* and *Scarlet Wax.*

Large White Marrow Wax. Hlm.

Leonard's Golden Eyed Wax. Entered as *Golden Eyed Wax.*

Lima Wax. All Brk Brb Gry May Sal Stk.

Similar names. Roger's Lima Wax.

Longfellow. Grn.

Lyonaise. *Nol.*

McKenzie's Perfection Wax. Entered as *Perfection Wax.*

Mammoth Red German Wax. McK Ren.

Seedsmen's synonyms. *Giant Wax*, Ren.

Mammoth Wax. SB. For similar names see *Giant Wax.*

Market Wax. Hen.

Maule's Butter Wax. Buc Mau Roc. For similar names see *Butter Wax.*

Midsummer Wax. Sal.

Milliken's Wax. K&W.

Mills' Rust Proof Wax. Mls. For similar names see *Rust Proof Wax.*

Monarch Wax. *D&H.*

Mountain of Gold. D&H.

New York State Golden Wax. Pg. For similar names see *Golden Wax.*

Pencil Pod Black Wax. All Bur *Drr* J&S Thr AGT.

Similar names. See *Keeney's Pencil Pod Wax.*

Pencil Pod Wax. Bkt Col Ggy *G&T* Lan Liv *Mns* Pnt *Shr Spf* Vau.

Similar names. See *Keeney's Pencil Pod Wax.*

Similar names. Keeney's Pencil Pod Black Wax, Keeney's Pencil Pod Wax, Pencil Pod Black Wax.

Perfection Kidney Wax. Alx. For similar names see *Perfection Wax*, *Kidney Wax.*

Perfection Wax. Ans Bgs Bng Buc Bui Bur Brw *CE* Col Dlw Drr *Fld* GH Gra Hlm J&S Mnd Mau *McK* McM Mhl MK Prn Poo Qkr Rce Roc Sie Y&H.

Similar names. Burpee's Perfection Wax, Young & Halstead's Perfection Wax, Perfection Kidney Wax.

Seedsmen's synonyms. *Flageolet Wax*, Mau Col. *Violet Flageolet*, Fer. *Violet Wax*, J&S.

Pink Eye Wax. Buc Brr *CE Man* MV NK Rce Roc Sox.

Prolific Black Wax. All Brd Bel Blg Brk Bng C&J *CE* Cur DD Drr GH Grn G&T TG Hrn Lur Mnd Mgd Mau May Mls MV NK Pri Raw Ree Rce Sal S&O Sie *Sox* S&H Thr Wd.

Similar names. Improved Prolific Black Wax, Early Prolific Black Wax. See also *Black Wax*, *Challenge Black Wax*, *German Black Wax.*

Seedsmen's synonyms. *Cylinder Wax*, Drr. *Butter*, Ree.

Prolific Everbearing Wax. M&S.

Prolific German Black Wax. Alr *Bel* Bow Bdg Bur Drm Gls Hde Hlm Iml Liv *Mns* Pks Pnt Qkr Spf *Tem* Tex Vau Vk Yng.

Similar names. See *German Black Wax.*

Seedsmen's synonyms. *Cylinder Pod*, Bur. *Improved Black Wax*, Bur. *Cylinder Black Wax*, HP. *Butler*, Bgs. *Improved German Black Wax*, Alr.

Prolific German Wax. Bkt Bgs Buc Bui Drm *Eas* Eie Fer Frd Ham J&S *LB* Loh PM McM Neb Nol HP Roc Stk Vl.

Similar names. See *German Black Wax*.

Seedsmen's synonyms. *Cylinder Wax*, Bkt J&S. *Improved Black Wax*, Buc Ham Roc.

Purple Flageolet Wax. Web. For similar names see *Flageolet Wax*.

Red Flageolet Wax. Bai Bgs Elt GH McK Mzy HP Pnt Qkr Thm Thr Wer.

Similar names. See *Flageolet Wax*.

Seedsmen's synonyms. *Scarlet Flageolet*, Pnt.

Refugee Wax. All Brd Brk Bow Bdg Bgs Brn *Bru* Buc Bur C&J *CE* Cle C&B CF Chm Dlw Dun Ebr Elt Emr Fer GH Grn Gry TG Hns Hst Hen H&C Hlm H&P Mnd Man *May* Mic MV Nol NK Pg *JMP* Prn Pri Qkr Raw Ree Roc *Rs Sal* S&F Sox S&W Thr Vl Vk Wea Web Wdr Y&H.

Similar names. Golden Refugee Wax, Improved Refugee Wax, Stringless Refugee Wax, Early Refugee Wax, Extra Early Refugee Wax, Keeney's Improved Stringless Refugee Wax, Thorburn Refugee Wax.

Rennie's Stringless Wax. Ren. For similar names see *Jones' Stringless Wax*.

Roger's Lima Wax. Bai Brd Buc Brr C&J Col Elt Fqr Iow Man Mau May Roc Rog S&F S&O Sim S&H Tem Trn.

Similar names. See *Lima Wax*.

Round Pod Kidney Wax. Ans Bkt *Drr Fer* Grn *Hlm* J&S Liv JMM Mhl *Mns Pnt*.

Similar names. See *Kidney Wax*.

Round Podded White Wax. All. For similar names see *White Wax*.

Rustless Golden Wax. *Bur* Hly Kra Vau.

Similar names. See *Golden Wax*, *Keeney's Rustless Golden Wax*.

Rust Proof Black Wax. Brd Elt. For similar names see *Black Wax*.

Rust Proof Golden Eyed Wax. Buc *LB* Roc.

Similar names. See *Golden Eyed Wax*.

Rust Proof Golden Wax. Alr Anb Ar Brk Buc Bur Dlw Drr Eie Evr Fmr Fqr Fst Frd G&T TG Hlm Hop Hse Kos LB Liv JL Loh Mgd Mau May M&S Neb OV Pot Roc *Tpk* Vl Wdr.

Similar names. See *Golden Wax*.

Rust Proof Wax. Ans Bow Buc DD GN Grw McM Por Pug RP S&R Stk Vin.

Similar names. Improved Rust Proof Wax, Mill's Rust Proof Wax, Shumway's Rust Proof Wax, California Rust Proof Wax.

Seedsmen's synonyms. *Detroit Wax*, Bow Por Pug S&R Stk.

Saddleback Black Wax. Brk *Brn* Rog.

Similar names. See *Saddleback Wax*, *Black Wax*.

Saddleback Wax. Bkt Bng Buc Bur D&C Drr Frd Grn Hbt Hlm Hnt Kei Mgd Man Mau *McK* Mhl Ree Ren Ree Roc Shw Shm Vk Vau.

Similar names. Burpee's Saddleback Wax, Saddleback Black Wax.

Salzer's Earliest Wax. Sal.

Salzer's Giant Stringless Wax. Sal. For similar names see *Giant Wax*.

Salzer's Golden Wax. Entered as *Golden Wax*.

Salzer's Round Podded Wax. Sal.

Scarlet Flageolet Wax. Ans Brn Bui *CE* Drr Fer Gdn Gra Iow J&M J&S Koe *Lan* Lnr *LB* Liv Loh Pnt Ree S&O Spf SB.

Similar names. See *Flageolet Wax*.

Seedsmen's synonyms. *Red Flageolet*, Pnt. *Crimson Flageolet*, Bui.

Scarlet Wax. Bui Dlw Ewg Lan Rim Stw Tat.

Similar names. Landreth's Scarlet Wax.

Seedsmen's synonyms. *Flageolet Wax*, Ewg.

Shumway's Rust Proof Wax. Shm. For similar names see *Rust Proof Wax*.

Silver Wax. Hlm *Mau* Sim.

Similar names. Holmes' Improved Silver Wax.

Simmers' Early Giant Wax. Sim. For similar names see *Giant Wax.*

Speckled Kidney Wax. Bui Jac.

Similar names. See *Speckled Wax, Kidney Wax.*

Speckled Wax. Buc DD *Fld* Gdn LB Roc.

Similar names. Beckert's Speckled Wax, Speckled Kidney Wax.

Seedsmen's synonyms. *Wardwell's Kidney Wax*, Gdn.

Stringless Refugee Wax. J&S Vau Wdr. For similar names see *Refugee Wax.*

Stringless Round Pod Wax. *Thr.*

Stringless White Wax. Grn. For similar names see *Jones' Stringless Wax.*

Tait's El Dorado Wax. Entered as *El Dorado Wax.*

Thorburn Refugee Wax, Thorburn Valentine Wax. Entered as *Refugee Wax* and *Valentine Wax.*

Twentieth Century Wax. Bur.

Similar names. Burpee's Twentieth Century Wax.

Valentine Wax. Alx All Bkt Bow Brk Bdg Brn Bru Buc C&J Cam *CE* CF CA Drr RE Evr *Fmr* Fqr Fer Frd Gdn Ggy Grn TG Hrs Hst JMP Hen Hlm H&P J&S Kos *Lnr* LB Liv Mgd *Mau May JMM* Mhl MV M&S Mzy Nol Prn JMP Pot Pri Raw Ree Roe Rog *Rs* Sal S&F *Shw* S&O Shm Sox Tem Thr Thb *Vl* Vau Vk Wea WS Wdr.

Similar names. Early Valentine Wax, Extra Early Valentine Wax, Alexander's Valentine Wax, Thorburn's Valentine Wax.

Ventura Wonder Wax. *Ger* J&M.

Violet Flageolet Wax. Brn Buc *CE* Fer GH Lnr *LB* Ree Roc *Shw.*

Similar names. See *Flageolet Wax.*

Seedsmen's synonyms. *Perfection Wax*, Fer.

Violet Wax. J&S.

Seedsmen's synonyms. *Perfection Wax*, J&S.

Wardwell's Early Kidney Wax. Crs Dlw *Tem* Vau.

Similar names. See *Wardwell's Kidney Wax.*

Wardwell's Improved Kidney Wax. Entered as *Wardwell's Kidney Wax.*

Wardwell's Kidney Wax. Alx Alr Anb Ans Ar Bai Bak Brd Brt Btl Ber Blg Bou Bow Brk Bdg Bgs Bri Brn Bru Bng Buc Brb Bur C&J Cam CE Cle C&B Col CF *Cox* Crg Cur CA Chm D&H Del DD Drr *Drm* Ebe Ebr Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Fld Frd Gls Gdn GH Gra Gng Ggy Gry *Gfy* G&T Grw TG Hns Hde Hrn Hrs Hrv Hst Hen H&C *Hly* Hlm Hop Hme H&P Iml Iow J&M J&S Jns Ken Kg Kra Lam Lan Lnr LB Liv Loh Mnd Mgd Mns Mas Mau May JCM JMM McK McM Mic Mhl Min MV M&S Mzy Neb Nol NK OV Pac *Pg* HP JMP Pir Pnt Poo Por Pot Pri Qkr Raw Ren Rim Roc Rog Rs RP S&R SC S&F Shw S&O Shm Sim Sox Spf Sqr Stk SB Stw S&H S&W Tem Tex TB Thm Thr Til *Tpk* Trm Vl Vau Wat Wea Web W&D Wd WS Wyg Yng Y&H.

Similar names. Wardwell's Early Kidney Wax, Wardwell's Improved Kidney Wax, Wardwell's Improved Wax, Wardwell's Wax.

Seedsmen's synonyms. *Speckled Wax*, Gdn.

Wardwell's Wax. Bkt Pg Ree. For similar names see *Wardwell's Kidney Wax.*

White Kidney Wax. DD Eic Pac Wer. For similar names see *Kidney Wax.*

White Wax. Ans Bai Bgg Bra Brk Bgs Bru Buc Bui C&J CE Cle Cox Crg Cur Ebe Emr RE Ewg Fqr Gng Grn Gry TG Hrm Hrs Hen K&W Kg Kos Lnr Liv JL Man JCM JMM Mhl MV Mzy Neb JMP Pir Ptt Pot Raw Ren Roc RP Sal S&O Shm *Sox* Sqr *SB* Stw S&W TatT B Thr Trm Vin Wea W&D Wer Wll Wdr.

Similar names. Improved White Wax, Early White Wax, Round Podded White Wax, German White Wax.

Seedsmen's synonyms. *Butter*, Bru Roc Vin. *German Wax*, Fqr.

Wonder of France. Grn.

Yellow Eyed Wax. Entered as *Golden Eyed Wax.*

Yosemite Black Wax. Brk Bng.

Similar names. See *Yosemite Wax, Black Wax.*

Yosemite Giant Wax. Sim Vau. For similar names see *Yosemite Wax.*

Yosemite Mammoth Wax. Alr Bai Bel Bgg Bra Bdg Bgs Bri Brn Buc Bui Bur Brr C&J *CE* Cle CCo Col Crs Cur Drr Elt Emr Ewg Fqr Frd Gra Gng TG Hst Hen Hlm Hop Hse Iow J&S Liv JL May JCM *McK* MV Mzy NK Pac Pks JMP Prn Ptt Pri Raw Ree Ren Rce Roc Sal Shm *Sox* S&H Tat Tem Thr Vk *W&D* Wer Wdr.

Similar names. See *Yosemite Wax.*

Yosemite Monster Wax. Chl GN. For similar names see *Yosemite Wax.*

Yosemite Wax. CF DD Grn Hme *Lnr* Man JMM S&F S&W.

Similar names. Yosemite Mammoth Wax, Yosemite Monster Wax, Yosemite Giant Wax, Yosemite Black Wax.

York Wax. Ggy.

Seedsmen's synonyms. *Golden Wax,* Ggy.

Young & Halstead's Perfection Wax. Entered as *Perfection Wax.*

Young's Improved Golden Wax. Entered as *Golden Wax.*

BEET (GARDEN BEET).

Acme. Sie.

Acme Early Blood. *CE.*

Acme Second Early. J&S M&S.

Albani. Pri.

Alexander's Early Red Turnip. Alx. For similar names see *Early Blood Turnip.*

Alneer's Early Columbia. Entered as *Early Columbia.*

American Egyptian. M&S. For similar names see *Extra Early Egyptian.*

Archias's Blood Turnip. Ar. For similar names see *Early Blood Turnip.*

Archias' Improved Blood Turnip. Entered as *Archias's Blood Turnip.*

Arlington. *CE* C&B Cur Dlw Del RE Hrv Hen *LB* Nol HP Pri Ren *Rce* Wdr.

Similar names. Improved Arlington, Early Arlington, Arlington First Early, Arlington Blood Red, Arlington Favorite, Extra Early Arlington Favorite, Rawson's Arlington Favorite.

Seedsmen's synonyms. *Favorite,* Wdr. *Rawson's Boston Market,* HP.

Arlington Blood Red. McK *M&S.* For similar names see *Arlington.*

Arlington Favorite. Brt CF Drr Fqr Frd Ggy J&S Lnr Liv Mns Mhl M&S Neb Pne Raw Rs S&F Wea.

Similar names. See *Arlington.*

Arlington First Early. Lan. For similar names see *Arlington.*

Atlanta's Earliest. Jac.

Similar names. Birmingham's Earliest, Faust's Early, Hammond's Early.

Baltimore Early Market. G&T. For similar names see *Early Market.*

Bassano. Bel Bou Bui *Brr* Ebe Elt Gry G&T Hde Inl MWJ Kg Lan Loh Mnd Man *PM* JMM McK McM OV Prn *Put* Shw Stk Stw S&W Thr *Tpk* Wlt Wdr.

Similar names. Early Bassano, Extra Early Bassano, Extra Early Flat Bassano, Early Flat Red Bassano, Early Flat Bassano, Flat Bassano, Early Egyptian Bassano.

Seedsmen's synonyms. *Extra Early,* Bow Shw Stk Wlt. *Extra Early Turnip,* Bui Lan G&T.

Bastian. Anb *Bgg* Bng Buc Chl C&B Cur D&H DD Ebe Gry Hrs Hen Hnt Lnr Mas JMM MV Mzy Nol Por Pri Ren Roe Rs S&R S&O *Sox* Thm Thr Y&H.

Similar names. See *Bastian's Early Blood Turnip.*

Bastian's Early. Brk C&J CF *Eas* Ebe Emr Fqr Fax Gls Jns May Min Pot Raw *Rs* Wea.

Similar names. See *Bastian's Early Blood Turnip.*

Bastian's Early Blood Turnip. Alr Bak Bgs Brr *CE* Cle Crs Drr Drm Dun Fer Ger Ggy TG Haw Hly Hlm Liv JL JMM McM Ptt Rce RP *Shw* Sox *Spf* S&H Til Tpk Vk W&D Wd Wdr WS.

Similar names. Bastian, Bastian's Early, Bastian's Extra Early Turnip, Bastian's Extra Early Red Turnip, Bastian's Early Red, Bastian's Half Long, Bastian's Half Long Blood Red. See also *Early Blood Turnip, Dewing's Blood, Edmand's Blood.*

Bastian's Early Red. Fst J&M Mau M&S Thm.

Similar names. See *Early Blood Turnip.*

Bastian's Extra Early Red Turnip. Bui Bur PM Pac.

Similar names. See *Bastian's Early Blood Turnip.*

Seedsmen's synonyms. *Lentz*, Bui.

Bastian's Extra Early Turnip. Bgg *Cam* CA RE Evr GH Hst H&C *Hlm* Jer J&S Kg Mhl OV Sal Shm *Tpk* Vl Wat.

Similar names. See *Bastian's Early Blood Turnip.*

Bastian's Half Long. Brn Bui Bur Cle Col Drr GH Hbt Hlm J&S PM Mhl Pug *Wat.*

Similar names. See *Bastian's Early Blood Turnip.*

Bastian's Half Long Blood Red. Fst Pac Sie.

Similar names. See *Bastian's Early Blood Turnip.*

Seedsmen's synonyms. *Philadelphia Perfection*, Bur PM.

Beats All. Brk. For similar names see *Best of All.*

Beckert's Perfection Blood Turnip. Bkt.

Similar names. See *Early Blood Turnip, Philadelphia Perfection.*

Beckert's Winter. Bri.

Best of All. GN Sal.

Similar names. Salzer's Best of All, Breck's Beats All, Beats All.

Birmingham's Earliest. Gdn. For similar names see *Atlanta's Earliest.*

Bismarck. Buc Roc.

Black Prince. SB.

Black Queen. Bui Chl Roc Thr W&D.

Similar names. Black Queen Half Long Blood, Queen of the Blacks.

Black Queen Half Long Blood. W&D. For similar names see *Black Queen.*

Blood Red Turnip. Mel. For similar names see *Early Blood Turnip.*

Blood Turnip. *Bel* Ber *Cam* D&C Evr Fld *Lur PM* McK Prn Ren Rim Roc SB.

Similar names. See *Early Blood Turnip.*

Bolgiano's Early Blood Red Turnip. Blg.

Similar names. See *Early Blood Turnip.*

Bolgiano's Extra Early Eclipse. Entered as *Extra Early Eclipse.*

Bonsecours Market. Ewg Gra.

Boston Market. HP Raw.

Similar names. Rawson's Boston Market.

Seedsmen's synonyms. *Improved Arlington*, HP.

Breck's Beats All. Entered as *Beats All.*

Briggs' Extra Early. SB. For similar names see *Extra Early.*

Bruce's Long Dark Blood. Entered as *Long Dark Blood.*

Brunning's Extra Early Blood Red Turnip. Bng.

Similar names. See *Early Blood Turnip.*

Buckbee's Half Long Blood, Buckbee's Improved Long Dark Blood. Entered as *Half Long Blood* and *Long Dark Smooth.*

Buist's Extra Early. Bui. For similar names see *Extra Early.*

Buist's Improved Long Blood. Entered as *Long Blood.*

Buist's Scarlet Perfection. Bui. For similar names see *Philadelphia Perfection.*

Burpee's Blood Turnip. Bur. For similar names see *Early Blood Turnip.*

Burpee's Extra Early. Bur. For similar names see *Extra Early.*

Burpee's Improved Blood Turnip. Entered as *Burpee's Blood Turnip.*

Cardinal. Mau Ren.

Carter's Excelsior. Mhl MV Ree. For similar names see *Excelsior.*

SEEDSMEN'S SYNONYMS. *Columbia,* J&S Cle.

Cattell's Long Blood Red. Entered as *Long Blood Red.*

Chicago Early Blood Turnip. Stk. For similar names see *Early Blood Turnip.*

Chicago Market. *Dlw* Kra Vl Vau.

SIMILAR NAMES. Vaughan's Chicago Market, Chicago Early Blood Turnip.

Columbia. Bai Brd Bkt Bel Brk Bdg Bri Buc Bur Brr C&J Cle Col Del Ebr Elt RE Fmr Fqr Fst Frd GH Gra GN Gry JMM Hlm Hop Hse Jer J&S Lan *Lnr Lon* Man Mls M&S Neb Pac Pg HP Qkr *Ree* Roe Shw Tem Thr Til Vin Wd W&D Y&H.

SIMILAR NAMES. Early Columbia, Alneer's Early Columbia, Extra Early Dark Red Columbia, Columbian Red.

SEEDSMEN'S SYNONYMS. *Carter's Excelsior,* Cle J&S. *Dark Red Turnip,* Pri. *Excelsior,* Wd.

Columbian Red. Loh. For similar names see *Columbia.*

Cooper's Market King. Entered as *Market King.*

Covent Garden. Ewg.

Cox's Blood Turnip. For similar names see *Early Blood Turnip.*

Cox's Improved Blood Turnip. Entered as *Cox's Blood Turnip.*

Crimson Globe. *Alx Ar* Brt Brk *Bur Brr EBC* Col Cur *Fqr* Ggy Ham Hen Lnr Ptt *Ree Rs SC Shw Sim* S&W Tem Thr *Thb Tlh Vau Wdr* Y&H.

SIMILAR NAMES. Wood's Crimson Globe, Extra Early Crimson Globe, Crimson Purple Globe, Early Crimson, Faust's Crimson, Nutting's Crimson, Faust's Early Crimson, Long Crimson, Early Crimson Globe.

Crimson King. Sal.

SIMILAR NAMES. Hasting's Crimson King, Lower's Early King, Market King.

Crimson Purple Globe. Shm. For similar names see *Crimson Globe.*

Crosby. Brt Bkt Bri Tex.

Crosby's Dark Red Egyptian. Bgs Crs SC *Thm.*

SIMILAR NAMES. See *Extra Early Egyptian.*

Crosby's Early. Mgd *Y&H.* For similar names see *Extra Early Egyptian.*

Crosby's Early Blood Turnip. RHJ.

SIMILAR NAMES. See *Early Blood Turnip, Extra Early Egyptian.*

Crosby's Early Dark Red Egyptian. Pnt.

SIMILAR NAMES. See *Extra Early Egyptian.*

Crosby's Early Egyptian. Btl Cle Gra Ggy Hns Ken Roe *Rs.*

SIMILAR NAMES. See *Extra Early Egyptian.*

Crosby's Egyptian. Brd *Bel* Ber Blg Bgg Brk Brn Bru Buc Brb Bur Brw C&J CE EBC C&B Col CF Cur Dlw D&H Drr Dun Ebe Ebr Eic Emr Evr Fqr Fer Gls Ggy Gry G&T Grw TG Ham Hrs Hen Hbt H&C Hlm Hse Iml Iow J&S *Jns* K&W K&F Koe Kos Kra Lan Lnr LB Liv JL Loh Man PM Mns *Mac* JCM JMM McK Mhl Neb Nol NK Old Pac Pg HP Prn *Put* Ptt Pot Rtk Raw Ren Ree Rs S&F Shw S&O Shm Spf Stk SB S&H Tat TB Thr Thb *Tlh* Til Trm Vl Vau Vk Wat Wea W&D Wd Wdr WS Y&H.

SIMILAR NAMES. See *Extra Early Egyptian.*

Crosby's Extra Early. Blg DD. For similar names see *Extra Early Egyptian.*

Crosby's Extra Early Egyptian. Brr Eic Gdn GH H&P Jac Kg Pri Sie.

SIMILAR NAMES. See *Extra Early Egyptian.*

Crosby's Extra Large Egyptian. Gng.

SIMILAR NAMES. See *Extra Early Egyptian.*

Crosby Improved. Entered as *Crosby.*

Crosby's Improved Egyptian. Entered as *Crosby's Egyptian.*

Danish Long Keeping. *M&S.*

Dark Blood Egyptian. RE. For similar names see *Extra Early Egyptian.*

Dark Red Egyptian. Bru Col CF Cox Crs Ger GH Mau Mzy NI Pir Ptt Raw Sal Stk *Thm* Vin.

Similar names. See *Extra Early Egyptian.*

Dark Red Blood. *Kei.*

Dark Red Turnip. Pri. For similar names see *Early Blood Turnip.*

Seedsmen's synonyms. *Columbia*, Pri.

Dark Stinson. Buc Bur *Jer* J&S Mls Ree. For similar names see *Stinson.*

Dell's Black Leaved. Bru *Fqr* RHJ Sim Thr W&D.

Similar names. Dell's Crimson Leaved, Dell's Improved Black Leaved, Dell's Superb Black, Dell's Flower Garden, Dell's Dark Crimson Long Smooth.

Seedsmen's synonyms. *Dell's Crimson Leaved.* Sim.

Dell's Crimson Leaved. Sim. For similar names see *Dell's Black Leaved.*

Seedsmen's synonyms. *Dell's Black Leaved.* Sim.

Dell's Dark Crimson Long Smooth. M&S.

Similar names. See *Dell's Black Leaf.*

Dell's Flower Garden. Kei. For similar names see *Dell's Black Leaved.*

Dell's Improved Black Leaved. Entered as *Dell's Black Leaved.*

Dell's Superb Black. Ewg Gra. For similar names see *Dell's Black Leaved.*

Detroit. Lan. For similar names see *Detroit Dark Red.*

Detroit Blood Red. Bri Emr *Gra.* For similar names see *Detroit Dark Red.*

Detroit Dark Red. Alr Bak Brd Brt *Blg* Brk Brn Buc *Bur* Brw C&J *EBC* Cle C&B CF Crs Cur *Dlw* Ebe *Ebr* Evr Fer Fle *Frd* Gls Gdn Ggy G&T *TG Hrs* Hrv Hen *H&C* Hlm H&P *Iml* J&S Jns Ken Kra Lam Lnr LB Liv Loh JMM Mgd Mns *Mau* Neb Nol Pg Pne *Pnt* Ptt Pot Raw *Ree* Roc Rs S&F *Shr* Shm Sie *Sim Spf* S&H S&W *Tex* Thr Til Vl Vau Vk Wea W&D Wd Wdr WS Y&H.

Similar names. Detroit Early Dark Red, Detroit Dark Red Blood, Detroit Blood Red, Detroit Red, Detroit.

Detroit Early Dark Red. Chl. For similar names see *Detroit Dark Red*

Detroit Red. Fqr. For similar names see *Detroit Dark Red.*

Dewar's Half Long. *Pat* SB. For similar names see *Half Long Blood.*

Dewing's Blood. Anb Brt Bkt Bel *Bgg* Bdg Bri Bru Bng Buc Brb Bur CE C&B CF Cur Drr Drm Dun Evr Fmr Fax Gdn GH Gry Hde Hrv Hen Hlm H&P Iow Jns K&W Kg Lea Lnr Liv JL Man PM *Mns* Mas JCM Mls Mzy Nol NI OV Pac JMP Pne Poo Pot Pri Raw Roc Rs RP Sim SB Tem Tex Thb *Tpk* Trm Vl Wea Web W&D Wer Wdr Y&H.

Similar names. Dewing's Early Blood, Dewing's Extra Early Blood, Dewing's Improved Blood, Dewing's Improved Early Blood, Dewing's Early Blood Red, Dewing's Early Red, Dewing's Red, Dewing's Early, Dewing's Extra Early. See also *Blood Turnip, Bastian's Early Blood Turnip, Early Blood Turnip, Edmand's Blood.*

Dewing's Blood Red. Pnt. For similar names see *Dewing's Blood.*

Dewing's Early. Ger Gls Loh Mnd May MV S&F Shm *Sox* Thr.

Similar names. See *Dewing's Blood.*

Dewing's Early Blood. Ar Brd Bow Bgg Brk Bgs Brr C&J *CE* EBC Cle Crs Dun Fqr Ggy Grw TG Hrm Hrn Haw Kra *Lnr LB* Mic Neb Nef Pir Ptt Ree S&O Sox Spf Tpk Vau Wll.

Similar names. See *Dewing's Blood.*

Dewing's Early Blood Red. Koe. For similar names see *Dewing's Blood.*

Dewing's Early Red. Bui *Eic Hlm* J&S Stk.

Similar names. See *Dewing's Blood.*

Dewing's Extra Early. Emr RE. For similar names see *Dewing's Blood.*

Dewing's Extra Early Blood. Ebe Evr. For similar names see *Dewing's Blood.*

Dewing's Improved Blood, Dewing's Improved Early Blood. Entered as *Dewing's Blood, Dewing's Early Blood.*

Dewing's Red. Sal. For similar names see *Dewing's Blood.*

Dewing's Turnip. *Eas* Raw.

Dirigo. Brb Brr Brw D&H Frd Ggy Gry *Hde* Hlm Mhl Pne Ptt *Shw* Tem Wd Wdr.

Similar names. Dirigo Extra Early.

Dirigo Extra Early. Gdn Hrm *H&C* K&W Lan Ree Y&H.

Similar names. See *Dirigo.*

Dirigo Extra Early Dark Red. *TG.*

Dobbie's Globe. Gra. For similar names see *Dobbie's Purple.*

Dobbie's Purple. Ewg Gra.

Similar names. Dobbie's Globe.

Dreer's Excelsior. Drr. For similar names see *Excelsior.*

Dwarf Black. Ewg Gra.

Earliest Dark Red Egyptian. Bgs. For similar names see *Extra Early Egyptian.*

Early Arlington. Brk Col Drw Fqr GH Grw TG Kra Ree Vau.

Similar names. See *Arlington.*

Early Bassano. Alr Bai *Bel* Bow Brk Bru Buc Brr Cle Crg CA Drr Emr RE Fmr Fqr Fer Frd GH Ggy Hrv H&C J&M J&S Jns Lam Lnr LB JL Mnd Mau May JCM MV JMP Ptt Por *Ren* Roc Sal S&R *Spf* Tem Thm Til Tpk Trm Web.

Similar names. See *Bassano.*

Seedsmen's synonyms. *Extra Early Turnip*, Bdg. *Sugar*, Bdg CA.

Early Blood Red Turnip. Ar Btl Bur MWJ Lan PM Neb Pac HP Stw.

Similar names. See *Early Blood Turnip.*

Early Blood Turnip. Alr Anb Bai Brd Btl Bkt Bel Bou Bow *Bgg* Bgs Brn Bru Bng Buc Bui Brb Brw Cam CE Chl Cle C&B Col CF Crg Crs Cur CA Drr Drm Eic Elt Emr RE Fer Fle Frd Gls GH Ggy Grw TG Hns Hde Hrn Hrs Hst Haw Hen H&C Hly Hop J&M J&S Jns Kei Ken Kg Kos Lam Lea Lnr LB Liv JL Loh Lon Mnd Mgd Man Mns May JCM JMM *McK* Mic Min MV Mzy Nef NI NK OV Pks HP JMP Pir Pne Pnt Ptt Por Pri *Rtk* Ree RP Sal S&R SC Shw S&O Sim Sox Spf Stk SB S&W Tat Tex Thm Thr Thb Tpk Trm T&B Vl Vk Vin Web Wer Wd Wdr WS Yng Y&H.

Similar names. Early Dark Blood Turnip, Extra Early Blood Turnip, Extra Early Dark Blood Turnip, Blood Turnip, Norwood Blood Turnip, Grey's Blood Turnip, Maule's Blood Turnip, Beckert's Perfection Blood Turnip, Improved Late Blood Turnip, Late Blood Turnip, Improved Blood Turnip, Burpee's Blood Turnip. Burpee's Improved Blood Turnip, Archias' Improved Blood Turnip, Archias' Blood Turnip, Cox's Improved Blood Turnip, Cox's Blood Turnip, Hastings' Improved Blood Turnip, Hastings' Blood Turnip, Will's Improved Blood Turnip, Will's Blood Turnip, Mitchell's Improved Turnip, Mitchell's Turnip, Chicago Early Blood Turnip, Plant's Improved Early Blood Turnip, Plant's Early Blood Turnip, Improved Early Blood Turnip, Crosby's Early Blood Turnip, Griffith & Turner Co.'s Early Blood Turnip, McMillan's Early Dark Blood Turnip, Hopkin's Darkest Blood, Whyte's Deep Blood, Holmes' Deep Blood Turnip, Red Turnip, Mitchell's Red Turnip, Alexander's Early Red Turnip, Simon's Early Red Turnip, Bolgiano's Early Blood Red Turnip, Eichling's Extra Early Red Turnip, Brunning's Extra Early Blood Red Turnip. Imperial Blood Red Turnip, Early Blood Red Turnip, Improved Blood Red Turnip, Dark Red Turnip, Early Dark Red, Huntington & Page's Early Dark Red Turnip. See also *Bastian's Early Blood Turnip, Dewing's Blood, Edmand's Blood.*

Early Columbia. Alr Hns. For similar names see *Columbia.*

Early Crimson. Ewg. For similar names see *Crimson Globe.*

Early Crimson Globe. *TG* Iow.

Early Dark Blood Turnip. Gdn TB Wlt.

Similar names. See *Early Blood Turnip.*

Early Dark Egyptian. Chl. For similar names see *Extra Early Egyptian.*

Early Dark Red. Dlw. For similar names see *Early Blood Turnip.*

Early Dark Red Egyptian. JMP SC.

SIMILAR NAMES. See *Extra Early Egyptian.*

Early Dark Red Flat Egyptian. CA Sim.

SIMILAR NAMES. See *Extra Early Egyptian.*

Early Eclipse. Alx Alr Bui Bgg Bgs Bui C&J *Cam* Crg CA Drr Elt RE Fqr Fax Fer Fle Gng *TG* Hde Hly Hlm Ken K&F *Kg* Lnr LB JL Loh May JCM Pg Pks JMP Pnt Por Pot Pri Qkr Ree Rim Rs S&R S&F Sim SB Til Vl *Vau* Vk Wlt Wyg.

SIMILAR NAMES. See *Eclipse.*

Early Egyptian. Alr Bak Bow *Cam* Fmr Fqr TG Hly Kg *Lnr LB* Liv JL Man McM Neb Nol Old *Pac* HP Por Pri Pug Ree Roc Rs S&R S&B AGT Trm T&B Vl Vau.

SIMILAR NAMES. See *Extra Early Egyptian.*

Early Egyptian Bassano. Hnt. For similar names see *Bassano.*

Early Electric. Alr Hen. For similar names see *Electric.*

Early Flat Bassano. *Bak* Brd Bgs Brb C&J *CE* C&B CF Cur Hrm Haw Hen K&W K&F Mzy Pnt Pug Rce SC S&O Sim Sox SB W&D Y&H.

SIMILAR NAMES. See *Bassano.*

Early Flat Red Bassano. Drm Liv. For similar names see *Bassano.*

Early Half Long Blood. Crg Sox. For similar names see *Half Long Blood.*

Early Large Egyptian. Blg. For similar names see *Extra Early Egyptian.*

Early Long Blood. Bgg. For similar names see *Long Blood.*

Early Market. Blg.

SIMILAR NAMES. Wesley's Earliest Market, Baltimore Early Market.

Early Othello. Gdn.

SIMILAR NAMES. Early Othello Dark Blood.

Early Othello Dark Blood. Bui Evr. For similar names see *Early Othello.*

Early Turin. Thr.

SIMILAR NAMES. Extra Early Turin.

Early York. Sal.

Early Yellow Turnip. Bgs Buc Bur C&J Elt Evr Gls Hen Hop Nef Ptt Qkr Raw Roc *Tem.*

SIMILAR NAMES. See *Yellow Turnip.*

Eclipse. Anb Ar Bai Bak Brd Brt Btl Bel Bou Brk Bri Brn Bru Brb Bur Brr Cam CE Chl Cle C&B Col CF Cox Crs Cur Dlw D&H Del DD D&C Drw Drm Dun Eas Ebe Eic Evr Ewg Fmr Fst Fld Frd Ger Gls GH Gra Ggy Gry G&T Grw TG Hns Ham Hrn Hrs Hrv Hst Haw Hen Hbt Hop Hse Hnt H&P Iml Iow Jer J&S MWJ RHJ J&M Kei K&W Kos Kra Lam Lea *LB* Liv Lon Mgd PM Mau Mas JMM McK Mel Mic Mhl Min Nol NI NK OV Old Pac HP Pir Prn Pne *Pnt* Ptt Poo Pug Rtk Raw Ren Rce *Rim* Rt *Rs* RP Sal SC S&B S&O Sie Sox Spf Stk SB S&H S&W Tem Tex Thm Thr Thb AGT Tpk Trm T&B *Vl* Vau Vin Wat Wea Web W&D Wer Wll Wdr Yng Y&H.

SIMILAR NAMES. Early Eclipse, Improved Early Eclipse, Extra Early Eclipse, Bolgiano's Extra Early Eclipse, Improved Extra Early Eclipse, Eclipse Crimson Turnip, Improved Eclipse.

Eclipse Crimson Turnip. Bdg. For similar names see *Eclipse.*

Edmand. Anb Bur Brw *CE* EBC Del Drw Drm Evr Frd Ggy Gry Hen Kos Mau JCM Mzy Nol Prn Pne *Put* Raw Rce Sal Trm.

SIMILAR NAMES. See *Edmand's Blood.*

Edmand Improved. Entered as *Edmand.*

Edmand's Blood. Bai Brd Brt Btl Bkt Blg *Bgg* Bri Brn Bng C&J Chl Cle C&B Crs D&H DD Drr Eas Fmr Fax Ger GH Ggy Grw Haw Hbt Iow Jns *Lam* Lnr Mnd Mgd Man Mns Mas May Mic Mhl MV NI NK OV Pac Pir Por Pri Qkr Ree Rs S&R S&F *Sox* S&W Thr AGT *Tlh* Til *Tpk* T&B Wdr Wyg Y&H.

Similar names. Edmand's Early Blood, Edmand's Improved Blood, Edmand's Improved Blood Red, Edmand's Blood Red, Edmand's Dark Blood, Edmand's Dark Red, Edmand's Red, Edmand's Early Red, Edmand's Improved Early, Edmand's Improved, Edmand's Extra Early, Edmand's Early, Edmand. See also *Early Blood Turnip, Bastian's Early Blood Turnip, Dewing's Blood.*

Edmand's Blood Red. Lan. For similar names see *Edmand's Blood.*

Edmand's Dark Blood. Alx. For similar names see *Edmand's Blood.*

Edmand's Dark Red. McK. For similar names see *Edmand's Blood.*

Edmand's Early. *Bel* Bgg Brk Bru Col CF Cur D&C Eic Elt Gdn Gng TG Hop Jer J&M K&W JL *May* JMM Pac Pug Ren Sim S&H Tem Thm Thb Wer.

Similar names. See *Edmand's Blood.*

Edmand's Early Blood. Ar Bak Bel Bow Bdg Bgs Buc Brb Brr Dun Emr *RE* Fqr Fer Hde Hrm Hrn H&C Hlm Kg Koe Kra Lam *Lnr* LB Liv Neb Old Pg HP Pnt Ptt Roc *Rs* RP SC Shw S&O Sox Spf Stk SB Tat Vl Vau Vk Wea Web W&D Wd WS.

Similar names. See *Edmand's Blood.*

Edmand's Early Red. Bui RE Iml J&S. For similar names see *Edmand's Blood.*

Edmand's Extra Early. Ber Ebe Ham Mls Shm.

Similar names. See *Edmand's Blood.*

Edmand's Improved Blood, Edmand's Improved Blood Red, Edmand's Improved Early. Entered as *Edmand's Blood, Edmand's Blood Red,* and *Edmand's Early.*

Edmand's Red. G&T. For similar names see *Edmand's Blood.*

Egyptian. Bai Brd Btl Bkt Brk Bdg Bri Brn Brb Brr CE C&B Del Drw Drm Ewg Fax Fld Gls Gra Ggy Hrn Hrv Hen Hlm Hop RHJ K&W Kra *Loh* JCM Mel Mls Nef Pg Prn Pne *Pnt* Poo RP S&F S&O Spf Stk SB Tex Thr Tpk Trm Wea Web W&D Wd Yng Y&H.

Similar names. See *Extra Early Egyptian.*

Eichling's Extra Early Red Turnip. Eic.

Similar names. See *Early Blood Turnip.*

Electric. Buc C&B Ebr GN Ham *Hde Hrn* J&S Lnr Mau Pg Pnt Poo *Ree* Roc SC Thr *Tlh* Yng.

Similar names. Extra Early Electric, Early Electric, Henderson's Early Electric.

Erfurt Prize. May OV *Tpk.*

Similar names. Gardener's Prize.

Evans' Improved Early Blood Turnip. Entered as *Early Blood Turnip.*

Excelsior. Cle Pri Wd.

Similar names. Carter's Excelsior, Dreer's Excelsior, Young & Halstead's Excelsior.

Seedsmen's synonyms. *Columbia,* Wd.

Extra Early. Bou Bdg Bui Cok Gdn G&T Jac Lan *McK* Ree Shw Stk Stw Wlt.

Similar names. McMillan's Extra Early, Simmers' Extra Early, Crosby's Extra Early, Burpee's Extra Early, Buist's Extra Early, Briggs' Extra Early, Harrisburg Market Extra Early, Landreth's Very Early, Extra Early Forcing, Extra Early Intermediate.

Seedsmen's synonyms. *Bassano,* Bow Shw Stk Wlt Bui Lan G&T. *Early Bassano,* Bdg. *Sugar,* Bdg.

Extra Early Arlington Favorite. M&S. For similar names see *Arlington.*

Extra Early Bassano. Anb Ar *Blg* Cam Cox Crs Gdn Hrs Hst H&P Jac Kei Ken Mhl Min Pri Shm Tat *Vl* Vk Vin Wd Ws.

Similar names. See *Bassano.*

Seedsmen's synonyms. *Sugar,* Wd Ws.

Extra Early Blood Turnip. Liv Pug *Wat.*

Similar names. See *Early Blood Turnip.*

Extra Early Crimson Globe. Brd. For similar names see *Crimson Globe.*

Extra Early Dark Beauty. Shm. For similar names see *Red Beauty.*

Extra Early Dark Blood Turnip. Shm. For similar names see *Early Blood Turnip.*

Extra Early Dark Egyptian. Emr Mas.

SIMILAR NAMES. See *Extra Early Egyptian.*

Extra Early Dark Red Columbia. Shm. For similar names see *Columbia.*

Extra Early Dark Red Egyptian. Shw Shm Wdr.

SIMILAR NAMES. See *Extra Early Egyptian.*

Extra Early Eclipse. Ber Blg Bow Bng Buc Brr Emr Gdn Gfg Hrm H&C Kg Koe Lan Mnd Mns MV Mzy Neb Nef Pri Roe Shm Stw Tat TB Wd WS.

SIMILAR NAMES. See *Eclipse.*

Extra Early Egyptian. Anb Ar Btl Bou Bng Buc Bui Bur Brr C&J Cam Cle Crg Cur Dlw Drr Ebe Eic Elt *RE* Evr Fst Fer Fle Gdn Gfg G&T Hns Hde Hrm Hst Haw H&P J&S Jac Jer J&M Lam Lan Lea Lnr LB Liv Loh Mnd PM May Mic Min MV M&S NK OV Pac Pks Pri Qkr Ree Sox SB Stw S&W Tat Tem Thm Til *Tpk Vl* Wat Wer WS Wyg.

SIMILAR NAMES. Extra Early Flat Egyptian, Extra Early Dark Egyptian, Extra Early Dark Red Egyptian, Leonard's Extra Early Egyptian, Improved Extra Early Egyptian, Earliest Dark Red Egyptian, Early Dark Egyptian, Maule's Dark Red Egyptian, Dark Red Egyptian, Early Dark Red Egyptian, Early Dark Red Flat Egyptian, Egyptian, Flat Egyptian, Improved Egyptian, American Egyptian, Early Egyptian Bassano, Early Egyptian, Improved Early Egyptian, Early Large Egyptian, Dark Blood Egyptian, Crosby's Egyptian, Crosby's Improved Egyptian, Crosby's Extra Large Egyptian, Crosby's Dark Red Egyptian,Crosby's Early Dark Red Egyptian, Crosby's Extra Early Egyptian, Crosby's Early Egyptian, Crosby's Early, Crosby's Extra Early, Crosby's Early Blood Turnip, Crosby's Improved.

Extra Early Electric. Bdg. For similar names see *Electric.*

Extra Early Flat Bassano. TG. For similar names see *Bassano.*

Extra Early Flat Egyptian. Blg DD *Kei* Mns JMM McK Ren.

SIMILAR NAMES. See *Extra Early Egyptian.*

Extra Early Forcing. Mic. For similar names see *Extra Early.*

Extra Early Intermediate. Ren. For similar names see *Extra Early.*

Extra Early Red Turnip. Alx.

Extra Early Turin. Tat. For similar names see *Early Turin.*

Extra Long Dark Blood. Shm Stw. For similar names see *Long Blood.*

Extra Long Smooth Deep Blood Red. Sim. For similar names see *Long Blood.*

Faust's Crimson. Ggy May. For similar names see *Crimson Globe.*

SEEDSMEN'S SYNONYMS. *Mitchell's Perfected,* Ggy.

Faust's Early. Eas. For similar names see *Atlanta's Earliest.*

Faust's Early Crimson. Fst Ggy Rs. For similar names see *Crimson Globe.*

Favorite. Wdr.

SIMILAR NAMES. Gardener's Favorite, Arlington Favorite, Extra Early Arlington Favorite, Rawson's Arlington Favorite.

SEEDSMEN'S SYNONYMS. *Arlington,* Wdr.

Ferry's Half Long Blood. Entered as *Half Long Blood.*

First and Last. Evr.

Flat Bassano. Ewg. For similar names see *Bassano.*

Flat Egyptian. Kei. For similar names see *Extra Early Egyptian.*

Ford's Perfected Half Long. Entered as *Half Long.*

Gardener's Favorite. Ewg. For similar names see *Favorite.*

Gardener's Prize. Vl. For similar names see *Erfurt Prize.*

Germain's Long Blood. Entered as *Long Blood.*

Golden Turnip. Eas. For similar names see *Yellow Turnip.*

Grey's Blood Turnip. Gry. For similar names see *Early Blood Turnip.*

Griffith & Turner Co.'s Early Blood Turnip. G&T.

Similar names. See *Early Blood Turnip.*

Half Long. *Eas* Hlm J&S.

Half Long Blood. Alx Bak Brd *Blg* Bow Buc *Can CE* C&B Cur Dlw Eic Elt Evr Fmr Fer Frd *Grw* Hde Hst Hen H&C Hly Hop Hse Hnt Iml J&M Jns Kg Kra Lam *Lur* LB Loh Mgd Man Mau Min MV M&S NI NK Old Pg HP Pnt Por Ree Roc S&R Shm *Sox* Stk SB S&H Thm Thr Til Trm Vl Vau Wer.

Similar names. Half Long Dark Blood, Early Half Long Blood, Half Long Red, Half Long Blood Red, Half Long Deep Blood Red, Buckbee's Half Long Blood, Ferry's Half Long Blood, Henderson's Half Long Blood, Simon's Strasburg Half Long Dark Blood, Strasburg Half Long Blood, Perfection Half Long Blood, Simon's Perfection Half Long Blood, Ford's Perfected Half Long, Salzer's Royal Half Long, Dewar's Half Long.

Half Long Blood Red. CA RE H&P Lan Liv Mic Stw *Vl* Vk Wlt WS.

Similar names. See *Half Long Blood.*

Half Long Dark. Bdg.

Seedsmen's synonyms. *Pear Shaped,* Bdg.

Half Long Dark Blood. Bgs Kei. For similar names see *Half Long Blood.*

Half Long Deep Blood Red. McK Pks Ren Sim.

Similar names. See *Half Long Blood.*

Half Long Red. MWJ. For similar names see *Half Long Blood.*

Hammond's Crimson Globe. *Ham.*

Hammond's Early. Ham. For similar names see *Atlanta's Earliest.*

Harrisburg Market Extra Early. Hlm. For similar names see *Extra Early.*

Hastings' Blood Turnip. Hst. For similar names see *Early Blood Turnip.*

Hastings' Crimson King. Hst. For similar names see *Crimson King.*

Hastings' Improved Blood Turnip. Entered as *Hastings' Blood Turnip.*

Henderson's Early Electric, Henderson's Half Long Blood. Entered as *Early Electric* and *Half Long Blood.*

Holmes' Deep Blood Turnip. Hlm. For similar names see *Early Blood Turnip.*

Holmes' Surprise. Hlm. For similar names see *Surprise.*

Hopkins' Darkest Blood. Hop. For similar names see *Early Blood Turnip.*

Huntington & Page's Early Dark Red Turnip. H&P.

Similar names. See *Early Blood Turnip.*

Ideal. Pg.

Imperial Blood Red Turnip. Gfg. For similar names see *Early Blood Turnip.*

Improved Arlington, Improved Blood Red Turnip, Improved Blood Turnip, Improved Early Blood Turnip, Improved Early Eclipse, Improved Early Egyptian, Improved Eclipse, Improved Egyptian, Improved Extra Early Eclipse, Improved Extra Early Egyptian, Improved Extra Long Dark Blood, Improved Late Blood Turnip, Improved Long Blood, Improved Long Blood Red, Improved Long Dark Blood, Improved Long Dark Blood Red, Improved Long Red, Improved Long Smooth Blood, Improved Long Smooth Blood Red, Improved Long Smooth Dark Red, Improved Long Smooth Red. Entered as *Arlington, Blood Red Turnip, Blood Turnip, Early Blood Turnip,* etc.

Incomparable. M&S.

Similar names. Simon's Incomparable.

Invincible. Sal.

Similar names. Salzer's Invincible.

Johnson & Stokes' Surprise. J&S. For similar names see *Surprise.*

King's Model. Kg. For similar names see *Skull's Model.*

Landreth's Very Early. Lan. For similar names see *Extra Early.*

Large Long Blood. G&T TB. For similar names see *Long Blood.*

Late Blood Turnip. Buc Roc. For similar names see *Early Blood Turnip.*

Late Stinson. Lan. For similar names see *Stinson.*

Lentz. Anb Btl Bru Buc Bui C&B CF Crs D&H Drr Ebe *Eic* Elt Frd Gls Gra Ggy TG Hen Lan Lnr M&S Nol OV Pg HP *Pnt* Pri Ren Rce Roc Stk SB *Thm Thr* Thb *Tpk* Trm Wat W&D Y&H.

SIMILAR NAMES. Lentz Early, Lentz Extra Early, Lentz Extra Early Red, Lentz Early Red, Lentz Hybrid, Lentz Extra Early Hybrid.

SEEDSMEN'S SYNONYMS. *Bastian's Early Turnip*, Gls. *Bastian's Extra Early Red Turnip*, Bui. *Mitchell's Perfected Earliest Dark Red*, Pnt.

Lentz Early. Alr Bgs Bri Cam Crs Hst JMM Mhl Sie.

SIMILAR NAMES. See *Lentz.*

Lentz Early Red. Eic. For similar names see *Lentz.*

Lentz Extra Early. Alx Bel Blg Bgg Bng Brb RE Fst GH Hst Hlm J&S Jns Mnd May Mls MV Pri Shm Sox Spf Tat W&D Wdr.

SIMILAR NAMES. See *Lentz.*

Lentz Extra Early Hybrid. Cle. For similar names see *Lentz.*

Lentz Extra Early Red. M&S Qkr. For similar names see *Lentz.*

Lentz Hybrid. Drr Ggy Mnd. For similar names see *Lentz.*

Leonard's Extra Early Egyptian. Entered as *Extra Early Egyptian.*

Lightning. May OV *Tpk.*

Lohrman's Egyptian. Entered as *Egyptian.*

Long Black Red. Hde. For similar names see *Long Blood.*

Long Blood. Alx Anb *Bd* Bui Crg Ebe Ewg Fmr Fld Ger Gdn Gra Hnt Jac MWJ JCM McM Mhl Mls NK Pir Pri Rtk Roc Stk Wat.

SIMILAR NAMES. Long Dark Blood, Early Long Blood, Germain's Long Blood, Improved Long Blood, Improved Long Dark Blood, Improved Extra Long Dark Blood, Extra Long Dark Blood, Buist's Improved Long Blood, McMillan's Improved Long Blood, Buckbee's Improved Long Dark Smooth, Bruce's Long Dark Blood, Salzer's Long Smooth Blood, Improved Long Smooth Blood, Long Smooth Blood, Long Smooth Dark Blood, Large Long Blood, Long Blood Red, Long Dark Blood Red, Improved Long Dark Blood Red, Whyte's Very Deep Long Blood Red, Cattell's Long Blood Red, Improved Long Blood Red, Long Smooth Blood Red, Improved Long Smooth Blood Red, Long Smooth Deep Blood Red, Extra Long Smooth Deep Blood Red, Long Dark Red, Pearce's Long Dark Red, Mitchell's Dark Red, Mitchell's Perfected Dark Red, Mitchell's Perfected Earliest Dark Red, Mitchell's Earliest Dark Red, Long Smooth Dark Red, Improved Smooth Long Dark Red, Whyte's Extra Dark Red, Long Smooth Red, Improved Long Smooth Red, Fancy Long Black Red, Improved Long Red, Maule's Improved Long Red, Mammoth Long Red.

Long Blood Red. Ar Btl Ber Bou *Bgg* Bri Brn Cam Cox Evr Gfg Hns RHJ Lan Mel *Pac* JMP Shw T&B Vl Wll.

SIMILAR NAMES. See *Long Blood.*

Long Crimson. Sal. For similar names see *Crimson Globe.*

Long Dark Blood. Brd Bgs Bru Crs Drr Fer Frd Hly Iow J&M Jns Lam LB Loh JMM Min NI Pg Pks Por S&R Sox S&H Thm Tpk Vin.

SIMILAR NAMES. See *Long Blood.*

Long Dark Blood Red. CA H&C Liv Mgd *Spf.*

SIMILAR NAMES. See *Long Blood.*

Long Dark Red. Bdg D&H Drm. For similar names see *Long Blood.*

Long Dark Smooth. Buc.

Long Red. Mau *M&S.*

Long Smooth Blood. Bai Bkt Brr Cam *CE* Cle CF Del Elt Emr RE Fqr Fax GH Gry Hde Hrm Hst Kei Ken Kg Lnr JL Man May MV Neb OV *Pnt* Ptt Pot Rce

RP Sal S&F S&O *Sox* SB Tat Thr AGT *Tlh* Til *Tpk* *Wat* Wea Web W&D Wlt Wd Wdr WS Wyg Y&H.

Similar names. See *Long Blood.*

Seedsmen's synonyms. *Long Smooth Red,* Cle.

Long Smooth Blood Red. Bel Brk Bru Brb Bur CE C&B Cur DD D&C Dun Fst Gls Hrs Hen Hlm Hop H&P J&S *Kei* K&W Kos Lea Mnd PM Mic Mzy Nol Pac Prn Pnt Poo Pug Qkr *Rtk* Ree SC Sie Tem Thb *Vl* Vk Wer.

Similar names. See *Long Blood.*

Long Smooth Dark Blood. Alr Bak Bow Col Eas Ggy Grw TG Haw Kra Old HP Raw Spf Vau.

Similar names. See *Long Blood.*

Long Smooth Dark Red. Hrn *LB* SB Yng. For similar names see *Long Blood.*

Long Smooth Deep Blood Red. *RE* Gng McK Ren SB.

Similar names. See *Long Blood.*

Long Smooth Red. Brt Bng C&J Chl Cle Hse Nef Thm.

Similar names. See *Long Blood.*

Seedsmen's synonyms. *Long Smooth Blood,* Cle.

Lower's Early King. M&S. For similar names see *Crimson King.*

McCullough's Norwood. Entered as *Norwood.*

McMillan's Early Dark Blood Turnip. McM.

Similar names. See *Early Blood Turnip.*

McMillan's Extra Early. McM. For similar names see *Extra Early.*

McMillan's Improved Long Blood. Entered as *Long Blood.*

Mammoth Long Red. CA Lea. For similar names see *Long Blood.*

Mann's Ruby. Entered as *Ruby.*

Market Gardeners. *Alr* Buc Col *D&H* Del Fmr Jns OV Pug Roe Shw Shm *Tpk* Web.

Similar names. Northrup, King & Co.'s Market Gardeners.

Market King. *Iow* Mau. For similar names see *Crimson King.*

Maule's Blood Turnip. Mau. For similar names see *Early Blood Turnip.*

Maule's Dark Red Egyptian, Maule's Improved Long Red. Entered as *Dark Red Egyptian* and *Long Red.*

Meteor. J&S Kei.

Mitchell's Improved Turnip, Mitchell's Perfected Dark Red, Mitchell's Peerless, Mitchell's Perfected Earliest Dark Red. Entered as *Mitchell's Turnip, Mitchell's Dark Red, Peerless,* and *Mitchell's Earliest Dark Red.*

Mitchell's Dark Red. Alr. For similar names see *Long Blood.*

Mitchell's Earliest Dark Red. Pnt. For similar names see *Long Blood.*

Seedsmen's synonyms. *Lentz,* Pnt.

Mitchell's Perfected. Brw *CE* Frd Hse Neb Ree S&O.

Similar names. See *Buist's Scarlet Perfection, Philadelphia Perfection.*

Seedsmen's synonyms. *Faust's Crimson,* Ggy.

Mitchell's Red Turnip. Bri Cle. For similar names see *Early Blood Turnip.*

Mitchell's Turnip. Yng. For similar names see *Early Blood Turnip*

Nineteenth Century. Pg.

Non Plus Ultra. Bru *RE* SB.

Northrup, King & Co.'s Market Gardeners. NK.

Similar names. See *Market Gardeners.*

Northrup, King & Co.'s Sterling. Entered as *Sterling.*

Norwood. JMM.

Similar names. McCullough's Norwood, Norwood Blood Turnip.

Norwood Blood Turnip. JCM.

Similar names. See *Early Blood Turnip, Norwood.*

Nutting's Crimson. May. For similar names see *Crimson Globe.*

Nutting's Dwarf. RHJ.

Nutting's Early Gem. M&S.

Nutting's Improved Dwarf. Entered as *Nutting's Dwarf.*

Olive Shaped. SB.

Pear Shaped. Bdg.

SEEDSMEN'S SYNONYMS. *Half Long Dark*, Bdg.

Pearce's Long Dark Red. Entered as *Long Dark Red.*

Peerless. *Mhl.*

Perfection Half Long Blood. M&S Shw.

SIMILAR NAMES. See *Half Long Blood, Philadelphia Perfection.*

Philadelphia Early. Lan. Mau. For similar names see *Philadelphia Perfection.*

Philadelphia Perfection. Bur Lan PM.

SIMILAR NAMES. Philadelphia Early, Philadelphia Red, Buist's Scarlet Perfection, Philadelphia Early, Beckert's Perfection Blood Turnip, Perfection Half Long Blood, Simon's Perfection Half Long, Mitchell's Perfected, Philadelphia Red.

SEEDSMEN'S SYNONYMS. *Bastian's Half Long Blood*, Bur PM.

Philadelphia Red. Bui. For similar names see *Philadelphia Perfection.*

Plant's Early Blood Turnip. Pnt. For similar names see *Early Blood Turnip.*

Plant's Improved Early Blood Turnip. Entered as *Plant's Early Blood Turnip.*

Queen of the Blacks. Gng J&M Thm. For similar names see *Black Queen.*

Rawson's Arlington Favorite, Rawson's Arlington, Rawson's Boston Market. Entered as *Arlington Favorite, Arlington*, and *Boston Market.*

Red Beauty. Sal.

SIMILAR NAMES. Shumway's Extra Early Dark Beauty, Extra Early Dark Red Beauty.

Red Turnip. Lan. For similar names see *Early Blood Turnip.*

Rennie's Intermediate. Ren.

Rochester. Vk.

Royal Half Long. Sal. For similar names see *Half Long Blood.*

Ruby. Man.

SIMILAR NAMES. Mann's Ruby.

Salzer's Best of All, Salzer's Invincible, Salzer's Long Smooth Blood, Salzer's Royal Half Long. Entered as *Best of All, Invincible, Long Smooth Blood*, and *Royal Half Long.*

Scarlet Tennisball. Lan.

Shull's Model. Bui.

SIMILAR NAMES. King's Model.

Shumway's Extra Early Dark Beauty. Entered as *Extra Early Dark Beauty.*

Siegel's Acme. Entered as *Acme.*

Simmers' Extra Early. Sie. For similar names see *Extra Early.*

Simon's Early Red Turnip. Eic. For similar names see *Early Blood Turnip.*

Simon's Incomparable, Simon's Perfection Half Long, Simon's Strasburg Half Long Dark Blood. Entered as *Incomparable, Perfection Half Long*, and *Strasburg Half Long Dark Blood.*

Sterling. NK *S&H.*

SIMILAR NAMES. Northrup, King & Co.'s Sterling.

Stinson. Roc.

SIMILAR NAMES. Late Stinson, Dark Stinson.

Strasburg Half Long Dark Blood. M&S. For similar names see *Half Long Blood.*

Sugar. Wd WS.

SIMILAR NAMES. White Flesh Sugar.

SEEDSMEN'S SYNONYMS. *Early Bassano*, Bdg CA. *Extra Early Bassano*, Wd WS. *Extra Early Turnip*, Bdg.

Sunset. Roc.

Surprise. RE McM.
Similar names. Holmes' Surprise, Johnson & Stokes' Surprise.
Sutton's Table Delicacy. Entered as *Table Delicacy.*
Table Delicacy. M&S.
Similar names. Sutton's Table Delicacy.
Vail's Extra Dark Red Turnip. *Vl.*
Vaughan's Chicago Market. Entered as *Chicago Market.*
Vicks' Rochester. Entered as *Rochester.*
Victoria. D&H Thr.
Wait's Dwarf Black. Entered as *Dwarf Black.*
Wesley's Earliest Market. M&S. For similar names see *Early Market.*
White Flesh Sugar. Alx. For similar names see *Sugar.*
Whyte's Deep Blood. Ewg. For similar names see *Early Blood Turnip.*
Whyte's Extra Dark Red. Ren. For similar names see *Long Blood.*
Whyte's Very Deep Long Blood Red. Sim. For similar names see *Long Blood.*
Will's Blood Turnip. Wll. For similar names see *Early Blood Turnip.*
Will's Improved Blood Turnip. Entered as *Will's Blood Turnip.*
Wood's Crimson Globe. Wd. For similar names see *Crimson Globe.*
Yellow Turnip. *CE* Frd Ggy Hst Pri Rce.
Similar names. Early Yellow Turnip, Golden Turnip.
Young & Halstead's Excelsior. Y&H. For similar names see *Excelsior.*

BEET (SUGAR BEET AND MANGEL-WURZEL).

Allen's Mammoth Long Red. Entered as *Mammoth Long Red.*
Alneer's Mammoth Long Red. Entered as *Mammoth Long Red.*
American Sugar. *GN* Ggy. For similar names see *Improved Sugar.*
Seedsmen's synonyms. *Lane's*, Ggy.
Bell's Giant Long Red. Entered as *Giant Long Red.*
Berkshire Prize Yellow Globe. Ewg. For similar names see *Yellow Globe.*
Breck's Imperial, Breck's Mammoth Long Red. Entered as *Imperial* and *Mammoth Long Red.*
Briggs' Mammoth Prize Long Red. Entered as *Mammoth Prize Long Red.*
Bruce's Giant Yellow Intermediate, Bruce's Giant Half Long, Bruce's Gatepost. Entered as *Giant Yellow Intermediate*, *Giant Half Long* and *Gatepost.*
Buckbee's Imperial, Buckbee's Mammoth Long Red, Buckbee's Mastodon. Entered as *Imperial*, *Mammoth Long Red*, and *Mastodon.*
Buist's Mammoth Prize Long Red, Buist's Prize Golden Globe. Entered as *Mammoth Prize Long Red* and *Prize Golden Globe.*
Canadian Giant. D&H. For similar names see *Giant.*
Carter's Improved Orange Globe. Entered as *Carter's Orange Globe.*
Carter's Orange Globe. Gls Ggy K&W Pne.
Similar names. See *Orange Globe.*
Carter's Mammoth Long Red. TG Kei Mas. For similar names see *Long Red.*
Carter's Prize Intermediate. RE. For similar names see *Intermediate.*
Carter's Prize Long Red. M&S. For similar names see *Long Red.*
Carter's Warden Orange Globe. Dun Kei *McK.*
Similar names. See *Orange Globe.*
Carter's Warden Prize Yellow Globe. Pks.
Similar names. See *Yellow Globe.*
Champion. CE GH.
Champion Colossal Long Red. M&S. For similar names see *Long Red.*
Champion Long Red. *Nol.* For similar names see *Long Red.*

Champion Orange Globe. *Pac* T&B. For similar names see *Orange Globe.*

Champion Prize Long Red. Bui. For similar names see *Long Red.*

Champion Red Globe. Buc D&H Roc. For similar names see *Red Globe.*

Champion Yellow Globe. Anb Bai Bdg Buc Bui Bur *CE* Cle C&B Cox Cur D&H RE Evr Fmr Fst Frd GH Gra Hrn Hen Hop Iow J&S Kos *LB* Liv Mnd PM Mau May OV Pac HP Ree Roc Sie Sim Thb *Tpk* Vl Vau Vk W&D.

Similar names. See *Yellow Globe.*

Seedsmen's synonyms. *Orange Globe,* Bur Cox Drm J&S Liv Vk, etc.

Champion Yellow Intermediate. G&T Kei.

Similar names. See *Yellow Intermediate.*

Seedsmen's synonyms. *Gatepost,* G&T.

Chirk Castle. Bui Gdn J&S *Sim.*

Similar names. Chirk Castle Long Red, Chirk Castle Mammoth.

Chirk Castle Long Red. M&S.

Similar names. See *Chirk Castle, Long Red.*

Seedsmen's synonyms. *Gatepost,* M&S.

Chirk Castle Mammoth. Nol. For similar names see *Chirk Castle.*

Colossal Long Red. C&B Hen. For similar names see *Long Red.*

Cox's Mammoth Long Red. Entered as *Mammoth Long Red.*

Currie's Improved Mammoth Long Red. Entered as *Mammoth Long Red.*

Danish Improved Red Top, Danish Improved Sugar. Entered as *Danish Red Top* and *Danish Sugar.*

Danish Red Top. RE. For similar names see *Danish Sugar.*

Danish Sugar. Bur D&H Gra Iow McK Ren *Ree* Sim SB *Wat.*

Similar names. Danish Improved Sugar, Steele, Briggs & Co.'s Danish, Rennie's Danish, Danish Improved Red Top, Queen of the Danes, Danish Red Top.

Seedsmen's synonyms. *Red Top,* McK.

Danube. *McK.*

Dewar's Half Long. Fle.

Dignity Long Red. Iow.

Similar names. Mammoth Dignity. See also *Long Red.*

Eckendorfer Red. Wer.

Similar names. Eckendorfer Yellow.

Eckendorfer Yellow. Wer. For similar names see *Eckendorfer Red.*

Eiffel Tower. Roc Sal.

Elite. NK.

Elvethan Long Yellow. Cur *Gra* Kei. For similar names see *Long Yellow.*

England Milk and Butter.

English Prize. May.

English Prize Long Red. GH. For similar names see *Long Red.*

Erfurt Model. Dlw Vau.

Evans' Improved Mammoth Saw Log, Evans' Giant Half Long Sugar Rose. Entered as *Mammoth Saw Log* and *Giant Half Long Sugar Rose.*

Ferry's Improved Mammoth Long Red. Entered as *Mammoth Long Red.*

French Giant Half Sugar. *Tlh.*

French Half Sugar Rose. J&S. For similar names see *French White Sugar*

French Imperial. Hde Mic. For similar names see *Imperial.*

French Improved. Ber. For similar names see *French White Sugar.*

French Silesian. Cox *Wat.* For similar names see *Silesian.*

French Sugar. CE Hly *Lnr Por S&R* Trm. For similar names see *French White Sugar.*

French Sugar Red Top. Col D&H Lnr *LB* Liv Neb Vau.

Similar names. See *French White Sugar.*

French White Sugar. Bai Brt Bdg Bui Cam Cle Crs Eie GH Grw TG Hrm Hst Haw RHJ K&W *Lan* Man May OV Pg Pks JMP Pir Ptt Por Pot Ree RP S&R S&O Sox Stk Thm Thr Tpk Web Wdr.

Similar names. Vilmorin's French White Sugar, Vilmorin's Improved French White Sugar, French White Sugar Red Top, French Sugar, French Sugar Red Top, French Improved, French Half Sugar Rose.

French White Sugar Red Top. Bak Bow Fer Fle *Gls* Loh Pks Rt.

Similar names. See *French White Sugar.*

French Yellow Sugar. Bow Brn Evr Fer GH *Lan* Loh Ree.

Similar names. See *Yellow Sugar.*

Gatepost. Brk Bru Cox D&H Ebe Fmr Ggy G&T Hrs J&S Mau M&S NK *Tll* Wdr.

Similar names. Gatepost Yellow, Bruce's Gatepost, Maule's Gatepost, Taber's Gatepost.

Seedsmen's synonyms. *Champion Yellow Intermediate,* G&T. *Chirk Castle Long Red,* M&S. *Giant Yellow,* AGT.

Gatepost Yellow. Gra. For similar names see *Gatepost.*

German Imperial. Sox. For similar names see *Imperial.*

German Imperial White. Bow Por S&R. For similar names see *Imperial.*

German Sugar. Sal.

Similar names. Salzer's German Sugar.

Giant. Bui Roe SC.

Similar names. Steele, Briggs Royal Giant, Pearce's Canadian Giant, Giant Feeding Sugar, Riverhall Giant Yellow, Giant Yellow Half Long, Canadian Giant, Royal Giant.

Giant Feeding. Fer *Jns.* For similar names see *Giant.*

Seedsmen's synonyms. *Half Sugar Mangel,* Fer.

Giant Golden Intermediate. Bng Bur Frd Ger J&S Liv Mls Pae Ptt Por S&R *Tem.*

Similar names. See *Intermediate.*

Seedsmen's synonyms. *Leviathan,* Por S&R. *Mammoth Yellow,* Liv. *Yellow Leviathan,* Bur Liv J&S.

Giant Half Long Sugar. *Bru Bur Iow Sim.*

Giant Half Long Sugar Rose. *RE.*

Giant Holstein. Bui Roe Sal.

Giant Intermediate. Bkt Bui C&B Cur Hrv Hen *Hlm* Roe Yng.

Similar names. See *Yellow Intermediate.*

Giant Long Red. Bkt Bel Cle Hns Inl *McK* Min.

Similar names. See *Long Red.*

Seedsmen's synonyms. *Mammoth Long Red,* SC. *Steele Briggs' Prize Mammoth,* SC.

Giant Long Yellow. D&H. For similar names see *Long Yellow.*

Giant Mammoth Long Red. Shm. For similar names see *Long Red.*

Giant Red Ovoid. Ggy. For similar names see *Yellow Ovoid.*

Giant Yellow Globe. McK. For similar names see *Yellow Globe.*

Giant Yellow Half Long. McK. For similar names see *Giant.*

Giant Yellow Intermediate. Bow Bru C&J *CE* Col Crs D&H RE Ewg GH Gng Ggy Gry Hrs Hlm *LB* Mau Ree Sim Thm Thr Vau Wdr.

Similar names. See *Intermediate.*

Seedsmen's synonyms. *Mammoth Half Long,* Sim.

Giant Yellow Ovoid. Ebe. For similar names see *Yellow Ovoid.*

Golden Giant. Ham May OV Vk. For similar names see *Mammoth Golden Giant.*

Golden Globe. Alx Bui Eie Gdn GH Jac McM *Y&H.*

Similar names. See *Yellow Globe.*

Golden King. D&H.

Golden Monarch. Buc. For similar names see *Monarch.*

Golden Tankard. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Blg Bgg Brk Bdg Bgs Bri Brn Bru Bng Bui Brb Bur Brr Brw C&J Cam CE Chl C&B Col CF Cok Cox Crs Cur Dlw DD Drr Dun Ebe Ebr Elt Emr RE Evr Ewg Fqr Fst Fax Fer Frd Ger Gls Gdn GH Gra Ggy Gry G&T TG Hns Ham Hde Hrm Hrn Hrs Hrv Hen *H&C* Hlm Hop Hse H&P Iml Iow Jac Jer MWJ J&M J&S Jns Kei K&W Ken Kg Koe Kos Kra Lam Lan Lnr Lea LB Liv JL Loh Mnd Mgd Man PM Mns Mas May JCM JMM McK McM Mic Mhl Mls MV M&S Mzy Neb Nol NK OV Old Pac Pg Pks HP JMP Pnt Ptt Poo Por Pot Pri Pug Qkr Raw Ree Rce Roc Rt Rs RP Sal S&R SC S&F S&O Shm Sie Sim Sox Spf Stw S&H Tem Tex TB Thm Thr *Tlh* Til *Tpk* Trm T&B Vl Vau Vk Vin *Wat* Wea W&D Wer Wll Wd Wdr WS Wyg Y&H.

Similar names. Golden Tankard, Hammond's Golden Tankard, Improved Golden Tankard, Yellow Tankard, Golden Yellow Tankard, Red Tankard, Wait's Red Tankard, Rennie's Tankard Cream, Minnesota Tankard, Tankard Cream.

Golden Yellow Giant. M&S. For similar names see *Mammoth Golden Giant.*

Golden Yellow Mammoth. Brt Drr TG Mas SC S&F.

Similar names. See *Mammoth.*

Golden Yellow Tankard. AGT. For similar names see *Golden Tankard.*

Goliath. *GN.*

Great Dane Half Sugar. *Mgd.*

Green Top White Sugar. Drr Ewg SB. For similar names see *Improved Sugar.*

Grey's Prize Long Red. Entered as *Prize Long Red.*

Half Long Mammoth. Sim. For similar names see *Mammoth.*

Seedsmen's synonyms. *Giant Yellow Intermediate,* Sim.

Half Sugar. Fer Hrs Lam *Por S&R.*

Seedsmen's synonyms. *Giant Feeding,* Fer.

Hammond's Golden Giant, Hammond's Monarch of All, Hammond's Golden Tankard, Hammond's Improved Mammoth Long Red. Entered as *Golden Giant, Monarch of All, Golden Tankard,* and *Mammoth Long Red.*

Harnden's Mammoth Long Red. Entered as *Mammoth Long Red.*

Harris' Yellow Globe. Entered as *Yellow Globe.*

Henderson's Champion Yellow Globe, Henderson's Colossal Long Red, Henderson's Giant Intermediate. Entered as *Champion Yellow Globe, Colossal Long Red,* and *Giant Intermediate.*

Holmes' Mammoth Prize Long Red. Entered as *Mammoth Prize Long Red.*

Imperial. Brk Brn Buc Dlw Eas Fld Gfg Hrs Lan Mau May *Mcl* NI Roc Sim Stw Tem *Vl.*

Similar names. Breck's Imperial, Buckbee's Imperial, German Imperial, French Imperial, Lane's Imperial, Vilmorin's Imperial, Improved Imperial, Lane's Improved Imperial, Vilmorin's Improved Imperial, Imperial Grey Top, Imperial White, Improved Imperial White, Vilmorin's Improved Imperial White, German Imperial White, Lane's Imperial White, Vilmorin's Imperial White.

Imperial Giant Half Long Sugar. *Sim.*

Imperial Gray Top. SB. For similar names see *Imperial.*

Imperial White. Alx Ar Bdg Bgs Drr Ebr Gra J&M Mhl Shm Thr Vk Wea.

Similar names. See *Imperial.*

Improved American Sugar, Improved Golden Tankard, Improved Imperial, Improved Imperial White, Improved Klein Wanzleben, Improved Long Red, Improved Mammoth Long Red, Improved Mammoth Prize Long Red, Improved

Orange Globe, Improved Red Globe, Improved Wanzleben, Improved White Sugar, Improved Yellow Ovoid. Entered as *American Sugar*, *Golden Tankard*, *Imperial*, *Imperial White*, etc.

Intermediate. Fer Lnr Loh.

SIMILAR NAMES. Carter's Prize Intermediate, Henderson's Giant Intermediate, Mammoth Red Intermediate, Giant Golden Intermediate, Giant Yellow Intermediate, Bruce's Giant Yellow Intermediate.

SEEDSMEN'S SYNONYMS. *Yellow Mammoth*, Ebe. *Yellow Ovoid*, Fer.

Intermediate Red. *McK.*

Jaensch's Victrix. *Fer.*

Jumbo. Mau.

SIMILAR NAMES. Jumbo Red, Jumbo Long Red.

SEEDSMEN'S SYNONYMS. *Colossal*, Drm J&S Liv. *Improved Mammoth Long Red*, J&S Liv. *Improved Mammoth Prize Long Red*, JL. *Mammoth Long Red*, Drm. *Norbiton Giant*, Drm J&S Liv JL HP.

Jumbo Long Red. Hst. For similar names see *Jumbo*, *Long Red.*

Jersey Queen. May.

Jumbo Red. HP. For similar names see *Jumbo.*

Kinver Yellow Globe. Brk Cle Fst Kos M&S Neb Raw.

SIMILAR NAMES. See *Yellow Globe.*

Klein Wanzleben. Alr Brd Brk Brn Bue *CE* Cle Col Cox Crs Dlw Del Drr Ebe Ebr Evr Fmr Fqr Fer Fle Frd Ger Gls Grw Ham Hrn Hrv Hlm Hse Iow J&M J&S Jns Kos Lan Lnr LB Liv JL *Loh* Mgd Man Mau May Mic MV Neb NK OV *Old* HP Por Pri Ree Roe Sal S&R S&O Shm Sie Sox *Spf SB* Stw *S&H* S&W TB Thr Til *Tpk* Vl Vau Vk Wer.

SIMILAR NAMES. Improved Klein Wanzleben, White Klein Wanzleben, Wanzleben, Improved Wanzleben.

Lane's Green Top. SB. For similar names see *Lane's Sugar.*

Lane's Imperial. Anb Bai Bow *Bgg* Bur *CE* Col Cur Del D&C Fst Fer Ger GH Grw Ham Hrm Hen Hlm Hop Hse Iow Jer J&M J&S *Jns* K&W Ken *Lnr* LB Liv JL Loh Man *JMM* Mls Mzy Neb OV Pg HP JMP Pne Pug Qkr Raw Ree Ren Ree Rt S&R *Tom* TB AGT *Tpk* Vin W&D Y&H.

SIMILAR NAMES. See *Imperial.*

Lane's Imperial White. CF Crs Prn Pri Wdr. For similar names see *Imperial.*

Lane's Improved Sugar, Lane's Improved Imperial, Lane's Improved White Sugar. Entered as *Lane's Sugar*, *Lane's Imperial*, *Lane's White Sugar.*

Lane's Sugar. Brd Brk Cox D&H Dun Emr Evr Fqr Frd Gdn Ggy Gry Hrs Kra *LB* Mns JCM JMM McK MV Old *Pac* Pir Por Rs S&O Sox S&H Thm T&B Vau *Wat.*

SIMILAR NAMES. Lane's White Sugar, Lane's Improved White Sugar, Lane's Improved, Lane's Green Top. See also *Vilmorin's Sugar*, *Improved Sugar.*

SEEDSMEN'S SYNONYMS. *Improved American Sugar*, Ggy.

Lane's White Sugar. Brr Chl Drr TG Jns Mhl S&F.

SIMILAR NAMES. See *Lane's Sugar.*

Large Obendorf Red. Dlw. For similar names see *Obendorf Golden.*

Large Obendorf Yellow. Dlw. For similar names see *Obendorf Golden.*

Large Red Globe. *CE* Jns Mls Ren Rce. For similar names see *Red Globe.*

Leonard's Improved Mammoth Long Red. Entered as *Mammoth Long Red.*

Leviathan. *Gls* Por S&R.

SIMILAR NAMES. Leviathan, Long Red, Yellow Leviathan.

SEEDSMEN'S SYNONYMS. *Golden Giant Intermediate*, Por S&R.

Leviathan Long Red. W&D. For similar names see *Leviathan*, *Long Red.*

Leutowitzer Red. Wer.

Long Mammoth. Mic. For similar names see *Mammoth.*

Long Red. Anb Bak Bow Bdg Bru Bui *CE* Cle CF Dlw Dun Eas Eic Emr RE Ewg Fer Fld G&T TG *Lam Lnr* LB May Min OV Pac Pri *Rtk* Rce Rt RP Sal S&O Sim Stk Tpk T&B Vin W&D Wer.

Similar names. Improved Long Red, Chirk Castle Long Red, Dignity Long Red, Jumbo Long Red, Leviathan Long Red, Colossal Long Red, Henderson's Colossal Long Red, Sutton's Champion Colossal Long Red, Champion Colossal Long Red, Norbiton Giant Long Red, Bell's Giant Long Red, Giant Long Red, Giant Mammoth Long Red, Perfection Mammoth Long Red, Improved Mammoth Long Red, Mammoth Long Red, Allen's Mammoth Long Red, Alneer's Mammoth Long Red, Breck's Mammoth Long Red, Buckbee's Mammoth Long Red, Carter's Mammoth Long Red, Cox's Mammoth Long Red, Harden's Mammoth Long Red, May's Mammoth Long Red, Vaughan's Mammoth Long Red, Vick's Mammoth Long Red, Currie's Improved Mammoth Long Red, Ferry's Improved Mammoth Long Red, Hammond's Improved Mammoth Long Red, Prize Long Red, Champion Prize Long Red, English Prize Long Red, Grey's Prize Long Red, Carter's Prize Long Red, Mammoth Prize Long Red, Improved Mammoth Prize Long Red, Briggs' Mammoth Prize Long Red, Buist's Mammoth Prize Long Red, Holmes' Mammoth Prize Long Red, Simmers' Mammoth Prize Long Red, Simmers' Improved Mammoth Prize Long Red.

Seedsmen's synonyms. *Cattle*, Bdg. *Scarcity*, Bdg.

Long White. Ewg.

Similar names. Sweet White.

Long Yellow. Bkt Brk Bru Cle RE Ewg GH Gra Hen Mnd MV Mzy Roc Sal Shm Sim Sox.

Similar names. Elvethan Long Yellow, Mammoth Long Yellow, Giant Long Yellow.

Mammoth. *McK* Roc.

Similar names. Long Mammoth, Half Long Mammoth, Red Mammoth, Yellow Mammoth, Golden Yellow Mammoth.

Seedsmen's synonyms. *Norbiton Red*, Ebr.

McKenzie's Manitoba Giant Yellow. Entered as *Manitoba Giant Yellow*.

Mammoth Dignity. Emr. For similar names see *Dignity Long Red*.

Mammoth Golden Giant. *Cam* Evr GH Gra Iow Koe NK *Spf* Stw Wll.

Similar names. Hammond's Golden Giant, Vick's Golden Giant, Golden Giant, Golden Yellow Giant, Yellow Giant, Mammoth Yellow Giant.

Mammoth Jumbo. Bui.

Mammoth Long Red. Alx Alr Bai Brd Btl Ber Bow Bgg Brk Bdg Bri Brn Bru Buc Brd Brr Cam CE Chl Cle Col Cox Crs Cur DD Drr Dun Eas Elt Emr RE Evr Ewg Fmr Fqr Fer Fle Frd Ger Gls Gdn Gra Gng Gfg Grw Ham Hde Hrm Hrn Hrs *H&C* H&P Jac *RHJ* J&M J&S Jns K&W Kg Koe Kos Kra Lam Lea *Lnr* LB Liv Loh Mnd Mgd Man May JCM McK McM Mhl MV Neb Nol NK OV Old Pg Pks HP Pir Prn Pne *Put* Ptt Poo Por Pot Pug Raw Ree Roc Rs RP S&R SC Shw Sox Spf Stw S&H S&W Tat Tem Tex TB Thm Thr Til Vl Vau Vk Wea *Wat* Web Wll Wdr.

Similar names. See *Long Red*.

Seedsmen's synonyms. *Colossal*, Fer Drm J&S Liv. *Monarch*, Fer. *Norbiton Giant*, Drm Hrs Fer J&S Liv. *Jumbo*, J&S Liv Drm. *Giant Long Red*, SC. *Saw Log*, SB.

Mammoth Long Yellow. *CE* Neb Rce. For similar names see *Long Yellow*.

Mammoth Prize Long Red. Bgs Bng Bui Bur *CE* Fst Haw Hlm Hop Hse JL PM Mau JMM Mls Pac JMP Qkr Rce Sie Sim Wd WS.

Similar names. See *Long Red*.

Seedsmen's synonyms. *Giant Jumbo*, PM. *Jumbo*, JL. *Norbiton*, PM. *Norbiton Giant*, JL.

Mammoth Red Intermediate. Bru McK Sim. For similar names see *Intermediate.*

Seedsmen's synonyms. *Red Oval Shaped Giant*, Sim.

Mammoth Saw Log. RE.

Similar names. Evans' Improved Mammoth Saw Log.

Mammoth Yellow Giant. Gls *RHJ.* For similar names see *Mammoth Golden Giant.*

Mammoth Yellow Intermediate. McK.

Similar names. See *Yellow Intermediate.*

Manitoba Giant Yellow. *McK.*

Mastodon. Buc Roc.

Similar names. Buckbee's Mastodon.

Maule's Champion Yellow Globe, Maule's Gatepost. Entered as *Champion Yellow Globe* and *Gatepost.*

May's Mammoth Long Red. Entered as *Mammoth Long Red.*

Minnesota Tankard. Fmr. For similar names see *Golden Tankard.*

Monarch. Brd.

Similar names. Monarch of All, Golden Monarch.

Seedsmen's synonyms. *Colossal*, Fer. *Ferry's Improved Mammoth Long Red*, Fer. *Norbiton Giant*, Fer.

Monarch of All. *Ham.*

Noll's Champion Long Red. Entered as *Champion Long Red.*

Norbiton Giant. Ar *Bak* Brd Brt Bgg Brk Bri Brr CF Dun Fqr Fax Gdn GH Ggy Grw Hrs Hrv Hly K&W Ken May Mhl Pg HP Pnt S&F Sox AGT *Tlh* Til Vin Wlt Wdr.

Similar names. Norbiton Giant Red, Norbiton Giant, Long Red.

Seedsmen's synonyms. *Colossal*, Drm Fer J&S Liv. *Ferry's Improved Mammoth Long Red*, Fer. *Improved Mammoth Long Red*, J&S Liv. *Jumbo*, Drm J&S Liv JL HP. *Monarch*, Fer. *Improved Mammoth Prize Long Red*, JL. *Mammoth Long Red*, Drm Hrs. *Mammoth Red*, Ar Pnt.

Norbiton Giant Long Red. Brw C&J *CE* Crs Elt RE Hrm Lrn LB Pot Pri Rce Rs Thb Y&H.

Similar names. See *Norbiton Giant, Long Red.*

Norbiton Giant Red. Bdg Neb Vin. For similar names see *Norbiton Giant.*

Norbiton Red. Ebr.

Seedsmen's synonyms. *Mammoth*, Ebr.

Obendorf Golden. Lan Wer.

Similar names. Obendorf Yellow, Large Obendorf Yellow, Large Obendorf Red.

Obendorf Yellow. RE. For similar names see *Obendorf Golden.*

Oblong Red Giant. RE. For similar names see *Red Giant.*

Olive Shape. Ger.

Similar names. Ward's Large Oval Shape.

Seedsmen's synonyms. *Yellow Ovoid*, Ger.

Orange Globe. Bai Bkt Bgs Buc Bui Bur C&J *CE* Cox D&H Drr Eas Emr *RE* Fer Frd Gdn Hrn Jac J&S Kei Lam *Lnr* Liv Loh PM MV Pac Prn Rce Roc Rs RP SC Sox Spf Thr Vk Web Wd WS.

Similar names. Improved Orange Globe, Carter's Improved Orange Globe, Carter's Orange Globe, Carter's Warden Orange Globe, Prize Orange Globe, Champion Orange Globe, Warden's Orange Globe.

Seedsmen's synonyms. *Champion Yellow Globe*, Bur Cox Drm Frd J&S Liv, etc. *Yellow Globe*, Spf Wd WS.

Orange Yellow Globe. Ptt. For similar names see *Yellow Globe.*

Oval Shape Red Giant. Sim. For similar names see *Red Giant.*

Seedsmen's synonyms. *Mammoth Red Intermediate*, Sim.

Pearce's Canadian Giant. Entered as *Canadian Giant.*

Perfection Mammoth Long Red. McK. For similar names see *Long Red.*

Prize Champion Globe. Brd. For similar names see *Yellow Globe.*

Prize Golden Globe. Bui. For similar names see *Yellow Globe.*

Prize Long Red. Gry Kos. For similar names see *Long Red.*

Prize Mammoth. SB.

Seedsmen's synonyms. *Giant Long Red*, SB.

Prize Orange Globe. Crs. For similar names see *Orange Globe.*

Queen of the Danes. Ewg. For similar names see *Danish Sugar.*

Queen of Denmark. *Thr.*

Red Giant. Mns.

Similar names. Oval Shape Red Giant, Oblong Red Giant.

Red Globe. Alr Btl Bow Bgg Brk Bgs Brn Bru Bur Brr Cle Crs Drr Emr RE Ewg Fmr Fqr Fer GH Gra Ggy Gry TG Hen Hns Iow Ken Lam Lan LB Liv Loh Man PM May JMM *McK* Mhl Min MV Neb OV Pac Pks Ptt Pri Raw Rs Sal S&O Shm Sox Spf S&W Thr *Tpk* Vk *Wat* Wea Yng.

Similar names. Champion Red Globe, Improved Red Globe, Large Red Globe.

Red Mammoth. Ar *Bak* Mzy Pnt Trm. For similar names see *Mammoth.*

Seedsmen's synonyms. *Norbiton Giant*, Ar Pnt.

Red Ovoid. Crs. For similar names see *Yellow Ovoid.*

Red Tankard. C&J Sim. For similar names see *Golden Tankard.*

Red Top. Btl Bkt Bur Ewg Gls Hns Lan Qkr Ren Sim SB Thm *Til* Vk.

Seedsmen's synonyms. *Danish*, McK.

Red Top Silesian. RE. For similar names see *Silesian.*

Red Top White Sugar. Bgs CE GH Gra J&S LB Mic Ree.

Similar names. See *Improved Sugar.*

Rennie's Danish. Entered as *Danish Sugar.*

Rennie's Danish Sugar, Rennie's Tankard Cream. Entered as *Danish Sugar*, *Tankard Cream.*

Rivenhall Giant Yellow. Ptt. For similar names see *Giant.*

Royal Giant. *D&H* SB. For similar names see *Giant.*

Salzer's German Sugar. Entered as *German Sugar.*

Saw Log. SB.

Seedsmen's synonyms. *Mammoth Long Red*, SB.

Silesian. Btl Dlw Hns Koe Lan JCM Mel Stw Wd WS.

Similar names. White Silesian, White Silesian Green Top, Red Top Silesian, French Silesian.

Simmers' Mammoth Prize Long Red. Entered as *Mammoth Prize Long Red.*

Steele, Briggs & Co.'s Danish Sugar, Steele, Briggs & Co.'s Royal Giant, Steele, Briggs & Co.'s Prize Mammoth. Entered as *Danish Sugar*, *Royal Giant*, *Prize Mammoth.*

Sutton's Champion Colossal Long Red. Entered as *Champion Colossal Long Red.*

Sweet White. Sal. For similar names see *Long White.*

Taber's Gatepost. Entered as *Gatepost.*

Tankard Cream. Ren. For similar names see *Golden Tankard.*

Vaughan's Mammoth Long Red. Entered as *Mammoth Long Red.*

Vick's Golden Giant, Vick's Mammoth Long Red. Entered as *Golden Giant* and *Mammoth Long Red.*

Vilmorin's French White Sugar. Ggy Vl.

Similar names. See *French White Sugar.*

Vilmorin's Imperial. Anb Ebe Fmr Frd H&P Jns *LB* Loh Mns Old Pg Pri Pug Raw Sal Vau Web.

Similar names. See *Imperial.*

Vilmorin's Imperial White. Kra M&S S&H. For similar names see *Imperial.*

Vilmorin's Improved French White Sugar, Vilmorin's Improved Imperial, Vilmorin's Improved Imperial White, Vilmorin's Improved Sugar, Vilmorin's Improved White Sugar. Entered as *Vilmorin's French White Sugar*, *Vilmorin's Imperial*, *Vilmorin's Imperial White*, *Vilmorin's Sugar*, and *Vilmorin's White Sugar*.

Vilmorin's Sugar. Btl Brk Brn CE Cle Cur Dlw Del Ebr Emr RE Fer GH Hns Hrn Hrs H&C Hin Iow J&M Kg Lan Lnr Man May JMM MV Mzy NK OV Pnt Por Ree S&R SC Spf SB Stw Thr Til *Tpk* Trm T&B *Vl* Wer Yng.

Similar names. Vilmorin's Improved Sugar, Vilmorin's White Sugar, Vilmorin's Improved White Sugar. See also *Lane's Sugar*, *Improved Sugar*.

Vilmorin's White Sugar. Bow Brr C&J C&B Cox Crs DD Evr Ger Gls Hen Hop Liv RHJ J&S Ken LB Mas Nol *Pac* Poo Tat Tex TB Vin Y&H.

Similar names. See *Vilmorin's Sugar*.

Wait's Red Tankard. Gra Kei. For similar names see *Golden Tankard*.

Wanzleben. Bur Elt MWJ Mls *Pac* Ren Sim T&B *Wat*.

Similar names. See *Klein Wanzleben*.

Warden's Orange Globe. Hrm Pri. For similar names see *Orange Globe*.

Warden's Prize. *Bgg*.

Ward's Large Oval Shape. Ewg. For similar names see *Olive Shape*.

White French. Bdg *Cam CE* CA *Til*.

Seedsmen's synonyms. *Field*, Bdg. *White Silesian*, Bdg.

White Klein Wanzleben. Btl. For similar names see *Klein Wanzleben*.

White Silesian. RE Fqr Fax Ger Ggy Gry Ken Mzy S&F Sim.

Similar names. See *Silesian*.

Seedsmen's synonyms. *Field*, Bdg. *White French*, Bdg.

White Silesian Green Top. McK Ren. For similar names see *Silesian*.

White Sugar. Alx Alr *Bgg* C&B CF *Cry* Cur DD Elt Emr G&T Hen Iml MWJ Kos MV Pri Shw *Sox* S&W Tat *Thr* Thb W&D.

Similar names. Improved White Sugar, Red Top White Sugar, Green Top White Sugar. See also *Vilmorin's Sugar*, *Lane's Sugar*.

Yellow Giant. *Gls* AGT. For similar names see *Mammoth Golden Giant*.

Seedsmen's synonyms. *Gatepost*, AGT.

Yellow Globe. Alr Anb Brt Btl Bow Bru Brr CF Cox Crs CA Dlw DD Drr Dun Ebe Elt Emr Ewg Fqr Fer Frd Ggy Gry Grw TG Hns *Ham* Hrm Hrs Haw J&M Jns Kei K&W Ken Kg Lan Lnr LB JL Man JMM Mhl Min MV Mzy Pg Pir Por Pri Pug Sal S&R S&F Shm Sox Spf S&H S&W Tat Thm Thr AGT Tpk Vin Wea W&D Wd Wdr WS Y&H.

Similar names. Kinver Yellow Globe, Harris Yellow Globe, Henderson's Champion Yellow Globe, Maule's Champion Yellow Globe, Berkshire Prize Yellow Globe, Buist's Prize Golden Globe, Carter's Warden Prize Yellow Globe, Giant Yellow Globe, Champion Yellow Globe, Prize Champion Globe, Orange Yellow Globe, Golden Globe, Prize Golden Globe.

Seedsmen's synonyms. *Orange Globe*, Spf Wd WS.

Yellow Intermediate. Bgs Brn Ebe RE *McK* Ren.

Similar names. Champion Yellow Intermediate, Mammoth Yellow Intermediate, Giant Intermediate.

Seedsmen's synonyms. *Yellow Ovoid*, Loh SB.

Yellow Leviathan. Bui Bur Fer Lam LB Roe Tem.

Similar names. See *Leviathan*.

Seedsmen's synonyms. *Golden Giant Intermediate*, J&S Liv. *Mammoth Yellow*, Liv.

Yellow Mammoth. Ebe. For similar names see *Mammoth*.

Seedsmen's synonyms. *Golden Giant Intermediate*, Liv. *Intermediate*, Ebe. *Yellow Leviathan*, Liv.

Yellow Ovoid. Bow Bgs Cle Emr Fer Ger GH TG Lan Lnr Loh Mls Min Pg Rce Roc Tat Thr.

Similar names. Improved Yellow Ovoid, Giant Yellow Ovoid, Giant Red Ovoid, Red Ovoid.

Seedsmen's synonyms. *Yellow Intermediate*, Fer Loh SB. *Yellow Olive Shape*, Ger.

Yellow Sugar. *CE* Gra *Y&H.*

Similar names. French Yellow Sugar.

Yellow Tankard. Mau *Sie.* For similar names see *Golden Tankard.*

BROCCOLI.

Alexander's Early Market. Entered as *Early Market.*

Autumn White Cape. AGT. For similar names see *White Cape.*

Carter's Summer. Cle.

Early Angiers. Mau.

Early Large French. Ebe. For similar names see *Large White French.*

Early Large White. CA G&T Iow MWJ Lan Liv JMM Mic SC.

Similar names. See *Large White.*

Early Large White French. Fer Ggy RHJ Vin.

Similar names. See *Large White French.*

Early Market. Alx.

Similar names. Alexander's Early Market.

Early Purple Cape. Brd Brk Bgs Bru Buc Bui Brr C&J *Cam* CE CF Crs DD Emr Evr Ger Gls Gry G&T Hrm Hrv Hlm Iow J&M J&S Kei Ken Kg LB JCM JMM MV Nol Pg Ptt Por Pri Roc S&R SC S&F S&O Sim Sox Tat TB Thr AGT Vin.

Similar names. See *Purple Cape.*

Early Walcheren. GH MV *Sox.* For similar names see *Walcheren.*

Early White. CF McM Mzy *Pnt* Thr. For similar names see *Large White.*

Early White Cape. Alx Bow Brr C&J CF Cox Crs DD Hrm Hrv Mnd JCM MV Ptt Roc S&O Sox.

Similar names. See *White Cape.*

Early White French. Bgg.

Easter Day. RHJ.

Extra Large French White Cape. Lam. For similar names see *White Cape.*

Grange's Autumn White Cape. Mhl. For similar names see *White Cape.*

Grange's White. Bui. For similar names see *Large White.*

Improved White Cape. Entered as *White Cape.*

Landreth's Purple. Mic.

Large White. Hns Hrn H&P Lea LB Sal *Vl.*

Similar names. Early White, Early Large White, Grange's White, White.

Large White Cape. Fmr TG OV *Tpk.* For similar names see *White Cape.*

Large White French. Bow.

Similar names. Early Large French, Early Large White French.

Large White Mammoth. Btl Drm Vau. For similar names see *Mammoth White.*

Late White Cape. Pri. For similar names see *White Cape.*

Mammoth White. RHJ Jns Mzy Thr.

Similar names. Large White Mammoth.

Purple Cape. Brt Btl *Bur* CE Cle C&B Cur Eic Elt RE Fmr Fst Fax GH Ggy Grw TG Hns Hst Hen H&P K&W Lam Lan Lnr *Man* Mau May Mzy NI OV Pot Rce RP Sal Shw Stk S&H *Tpk Vl* Vau Vk Wer Wll Y&H.

Similar names. Early Purple Cape.

Purple Sprouting. RHJ Thr.

Snow White. M&S *Nol* NK.

Similar names. Sutton's Snow White, Snow White Winter.

Snow White Winter. Cam. For similar names see *Snow White.*

South Hampton. Ebe.

Sutton's Snow White. Entered as *Snow White.*

Veitch. Brk.

Similar names. Veitch Self Protecting.

Veitch Self Protecting. Thr. For similar names see *Veitch.*

Walcheren. Bui C&B Del Elt Gdn Hen *Kei* Lnr Mzy Ren Sox W&D.

Similar names. Early Walcheren, White Walcheren.

White. Ren. For similar names see *Large White.*

White Cape. Brd Brt Bkt Brk Bri Buc Cam CE Cle C&B D&H Del Drr Eic Elt Emr Fqr Ger GH Gry Grw Hst Hen Hop K&W *Lam* Lnr Man May M&S NI Poo Por Pot Raw Ree RP S&R S&F T&B Vk Wea W&D Wd WS Y&H.

Similar names. Early White Cape, Late White Cape, Improved White Cape, Autumn White Cape, Grange's Autumn White Cape, Large White Cape, Extra Large French White Cape.

White Walcheren. RE Ggy Sim SB. For similar names see *Walcheren.*

BRUSSELS SPROUTS.

Brussels Sprouts. Alr Anb Bak Brd Btl Bel *Ber* Bui CE Cox Crg Dlw Eic RE Fer Gls G&T Hns Hde Hly MWJ Koe Lan LB Mns Mau Min NK Pks Pne SC Shw Shm *Spf* Stk Stw Tem Vin.

Aigburth. Fqr.

American Mammoth. Iow.

Similar names. Brunning's Mammoth.

Brunning's Mammoth. Bng. For similar names see *American Mammoth.*

Carter's Perfection. Entered as *Perfection.*

Dalkeith. Cam Cle C&B Del RE Ggy Hen Kei Ptt SB.

Similar names. Giant Dalkeith, Improved Dwarf Dalkeith, Dwarf Dalkeith.

Defiance. Chl.

Dobbie. Gra.

Dreer's Matchless. Drr. For similar names see *Matchless.*

Dwarf. Alx Brt Bkt Bow Bdg Bgs Buc Cam *CE* Cle C&B Col Crs Cur D&H Del Drm Eas Ebe Elt Evr Fmr Fax Ger GH Gng Ggy Grw Hrm Hrn Hrv Hst Hen H&P J&M K&W Kos Kra Lam Lea Lnr Liv Mnd Man Mas May JCM JMM Mic MV Mzy NI OV Pac Prn Por Pot Pri Pug Qkr Raw Ree Roe Sal S&R *Shw* S&O Sim Sox S&H S&W Tex TB Thm Thr *Tpk* T&B *Vl* Vk W&D Wer Wdr Y&H.

Similar names. Improved Dwarf.

Seedsmen's synonyms. *Miniature Cabbage,* Bdg. *Perfection,* Frd Tm Bdg.

Dwarf Dalkeith. Poo. For similar names see *Dalkeith.*

Dwarf French. Brk Emr Gry Ken S&F. For similar names see *French*

Dwarf Paris Market. Ewg Gra. For similar names see *Paris Market.*

Edinburgh Prize. Ewg.

English. Fqr Iow Loh.

Seedsmen's synonyms. *Spring Sprouts,* S&W Thr.

Exhibition. Mhl.

Similar names. Sutton's Exhibition.

French. Bdg Brr DD Mnd *Man* Tat Thr Vin.

Similar names. Tall French, Large Tall French, Improved Dwarf French, Dwarf French.

Seedsmen's synonyms. *Roseberry,* DD Mnd Thr Vin.

Giant. Ren.

Similar names. Scrymger's Giant.

Giant Dalkeith. Gra. For similar names see *Dalkeith.*

Half Dwarf. *Bgg* Bri CF Fer J&S Kg Nol Pir *Sox* Thr.

Similar names. Improved Half Dwarf.

Seedsmen's synonyms. *Paris Market,* CF J&S Nol.

Half Dwarf Paris Market. Hrs RHJ Ree. For similar names see *Paris Market.*

Half Long. DD.

Similar names. Improved Half Long.

Hercules. Vau.

Improved Brussels Sprouts, Improved Dwarf, Improved Dwarf Dalkeith, Improved Dwarf French, Improved Half Dwarf, Improved Half Long, Improved Long Island, Improved Matchless, Improved Paris Market, Improved Roseberry. Entered as *Brussels Sprouts, Dwarf, Dwarf Dalkeith, Dwarf French,* etc.

Large Tall French. Sim. For similar names see *French.*

London Market. Ewg.

Long Island. C&B Ggy *J&S* Thr W&D.

Similar names. Improved Long Island, Long Island Half Dwarf.

Long Island Half Dwarf. Drr. For similar names see *Long Island.*

Market Favorite. M&S.

Similar names. Veitch's Market Favorite.

Matchless. Chl Mhl.

Similar names. Improved Matchless, Dreer's Matchless, Sutton's Matchless.

Paris Market. Brk Bng Bur Fqr Hrm Jns Nol Pg S&F Vau Wll.

Similar names. Improved Paris Market, Dwarf Paris Market, Half Dwarf Paris Market.

Seedsmen's synonyms. *Improved Half Dwarf,* CF J&S Nol.

Perfection. Bgg Bng Bur Brr *CE* Fst Gdn Hop McM Mls Nef Ree Rce S&O Sie Til Wd WS.

Similar names. Carter's Perfection.

Seedsmen's synonyms. *Improved Dwarf,* Frd.

Roseberry. Bdg DD Mnd Pnt Tat Thr Vin.

Similar names. Improved Roseberry.

Seedsmen's synonyms. *French,* DD Mnd Vin Thr.

Scrymger's Giant. Fqr Hrm. For similar names see *Giant.*

Sutton's Exhibition. Entered as *Exhibition.*

Sutton's Matchless. RE M&S. For similar names see *Matchless.*

Tall. CF Pot W&D.

Tall French. Del Elt GH Gry Hen Lnr Raw AGT. For similar names see *French.*

Veitch's Market Favorite. Entered as *Market Favorite.*

BURNET.

Burnet. Brt Bkt Bdg Cle Fqr Gry Ken Mnd Sal S&F Thr.

CABBAGE.

Acme Flat Dutch. Bur Fer Hlm *Shw* Wll.

Similar names. See *Large Late Flat Dutch.*

Acme Large Late Flat Dutch. Roc.

Similar names. See *Large Late Flat Dutch.*

Admiral Dewey. *Mls.*

All Head. Alr Ar Brd Bgs Bri *Brn* Bru Bng Bui Bur Brw CE Cur D&H Drm RE Fqr Fer Gdn Gra Gng Ggy Gry G&T TG Iml Jac Jer *Jns* Ken *Kg* Lan Man *May* McM Neb Ptt Por Raw S&R S&F Tat.

Similar names. Burpee's All Head, McMillan's All Head, Early All Head, Burpee's Early Hard Head, Eichling's Early All Head, Mill's Early All Head, Phillip's Medium Early All Head.

All Seasons. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Bou Bow Bgg Brk Bdg Bgs Bri Brn Bru Buc Bui Brb Bur Brr Brw C&J Cam CE Chl Cle Col CF Cox Crg Crs Cur CA Chm Dlw *D&H* Drr Dun Eas Ebe Eie Elt Emr RE Evr Fqr Fst Fer Fld Ger Gls Gdn GH Gra Ggy Gry Gfg G&T Grw TG Hns Hde Hrm Hrn Hrv Hbt H&C Hly Hlm Hop Iml Iow Jac MWJ J&M J&S Jns *Kei* K&W Ken K&F Kg Kra Lam Lan Lnr LB Liv JL Loh *Lon* Mnd Mgd Man PM Mns Mas May JCM JMM McK McM Mic Mhl Mls MV Mzy Neb Nol NI NK OV Old Pac Pg HP Pir Prn Pne Pnt Ptt Por Pot Pri Pug Qkr Raw Ree Ren Rce Roc Rs RP Sal S&R SC S&F Shw S&O Shm Sie Sim Sox Spf Stk SB Stw S&H S&W Tat Tem Tex Thm Thr AGT Til *Tpk* Trm T&B *Vl* Vau Vk Vin Wat Web W&D Wer Wdr Wd WS Wyg Yng.

Similar names. Improved All Seasons, Gregory's All Seasons, All Season's Vandergaw, Willett's All Season's Surehead.

Seedsmen's synonyms. *Succession*, Ebr Lam Por S&R AGT Vin. *Sure Head*, Eic K&F SC. *Vandergaw*, Brt Bkt Col Iow J&S Rs, etc.

All Seasons Surehead. Wlt. For similar names see *All Seasons*.

All Seasons Vandergaw. Vl. For similar names see *All Seasons*, *Vandergaw*.

All the Year Round. Bri J&S Lan Liv M&S Stw.

Similar names. Landreth's All Year Round, Lauderback's All Year Round, Market Gardener's All Year Round.

Allen's, Early Flat Dutch, Allen's Market Gardener's Private Stock Flat Dutch. Entered as *Early Flat Dutch* and *Market Gardener's Private Stock Flat Dutch*.

Alneer's Excelsior Large Late Flat Dutch, Alneer's Premium Flat Dutch, Alneer's Safe Crop, Alneer's Winter King. Entered as *Excelsior Large Late Flat Dutch*, *Premium Flat Dutch*, *Safe Crop*, and *Winter King*.

Alpha. *Brd* CF Cur *Gry H&C* Iow *Jns Sie* Wd.

Similar names. Extra Early Alpha.

Amager. TG.

Seedsmen's synonyms. *Danish Ball Head*, Blg Bui Fqr TG. *Hollander*, Bui Fqr. *Solid Emperor*, Fqr.

American Drumhead. Fmr Mnd.

Similar names. Late American Drumhead, Improved American Drumhead, Large American Drumhead, Improved Large American Drumhead.

American Perfection Savoy. *Bak* Wd.

American Savoy. Alr Brd Brt Brk Bgs Brn Buc Brb Cam CE Cle C&B Col Cox Crs Cur *DD* Eas Emr Fqr Fer Frd Gls Gdn GH Ggy Gry Hrm Haw Hen H&C Iml J&M Jns K&W Kra Lam Lnr *Liv* Loh *PM* JMM *Mls* Nef *Pac* Pks HP JMP Prn Pot Qkr Roc Rs Spf SB S&H S&W T&B Vau Vk Web W&D Wer Wyg.

Similar names. Improved American Savoy, Late American Savoy.

Archias' Extra Early. Ar.

Similar names. Aroostook Extra Early, Maule's First Early, First Early, Tait's Extra Early, Wood's Extra Early.

Aroostook Extra Early. Jer. For similar names see *Archias' Extra Early*.

Arrington's Earliest. CA. For similar names see *Earliest*.

Augusta Early Trucker. Alx.

Autumn Giant. RHJ *M&S*.

Similar names. Everitt's Early Giant, Early Giant, Russian Round Giant, Earliest White Giant.

Autumn King. Alx Alr Anb Brd Bkt Bel Ber Bdg Bri Bru Bui Bur Brr *CE* Cle C&B CF Cok D&H Del Dun *Ebr* Elt RE Evr Ewg Fmr Fqr Frd Gdn GH Gra Gng Gry G&T TG Hen Hlm Hse H&P Iml J&S Ken Kg Lam Lan LB Liv Mgd Man

PM Mns Mau *May* JMM McK McM Nol Pks HP JMP Prn Por Pri Qkr Raw Ree Ren Rce Roc Rs Sal S&R S&O Shm Sie Sim Spf SB S&W Tem Tex Thr Thb Vau Vk Wea W&D.

Similar names. Improved Autumn King, Henderson's Autumn King, Steele, Briggs Chester King, Christmas King, Buckbee's Christmas King, Alneer's Winter King, Winter King, Hastings' Emerald King, Emerald King, Chester King.

Seedsmen's synonyms. *World Beater*, Alx Bkt Bui Bur Mau Raw, etc.

Auvergne Quintal. *RHJ.* For similar names see *Schweinfurt Quintal.*

Ball Head. Crs Roc. For similar names see *Danish Ball Head.*

Bamberg Earliest. *Evg.*

Baseball. *Bur.*

Seedsmen's synonyms. *Emperor*, OV. *Export*, OV. *Holland*, Roe. *Hollander*, OV.

Battersea. Tat.

Seedsmen's synonyms. *Early Drumhead*, Tat. *Early Dutch Drumhead*, Bdg. *Early Dutch*, Bdg.

Bell's Mammoth Wakefield, Bell's Sure Head. Entered as *Mammoth Wakefield* and *Sure Head.*

Bellville. Bng *Bur.*

Similar names. Small Belleville.

Big 4. Hst.

Blood Red Berlin. Bui.

Blood Red Drumhead. Ren. For similar names see *Red Drumhead.*

Blood Red Dutch. JL. For similar names see *Red Dutch.*

Blood Red Erfurt. *Hst.*

Bloomsdale Brunswick. Lan. For similar names see *Fottler's Brunswick.*

Bloomsdale Early Drumhead. Lan Stw *Vl.*

Similar names. See *Early Drumhead.*

Bloomsdale Early Dwarf Flat Dutch. Lan.

Similar names. See *Early Flat Dutch.*

Bloomsdale Large Late Drumhead. Lan Stw.

Similar names. See *Large Late Drumhead.*

Bloomsdale Large Late Flat Dutch. Lan Stw.

Similar names. See *Large Late Flat Dutch.*

Blue Boom. JL.

Similar names. Livingston's Blue Boom.

Bolgiano's Early. Blg. For similar names see *Earliest.*

Bolgiano's Early Drumhead, Bolgiano's Early Flat Dutch, Bolgiano's Early Large York, Bolgiano's Improved Savoy, Bolgiano's Large Late Drumhead. Entered as *Early Drumhead, Early Flat Dutch, Early Large York, Bolgiano's Savoy*, and *Large Late Drumhead.*

Bolgiano's Savoy. Blg. For similar names see *Savoy.*

Boss Flat Dutch. G&T. For similar names see *Flat Dutch.*

Boston. *Fax.*

Boston Hard Head. M&S. For similar names see *Hard Heading.*

Brandon Market. *McK.*

Bridgeport Drumhead. Brd *CE* Fmr J&S Liv Lnr Old Ree Shm Spf Tem Vau.

Similar names. Old's Bridgeport Drumhead, Vaughan's Bridgeport Drumhead, Leonard's Improved Bridgeport Drumhead, Buckbee's Mammoth Late Bridgeport Drumhead, Mammoth Late Bridgeport Drumhead, Large Late Bridgeport Drumhead, Mammoth Bridgeport Drumhead.

Brill's Eureka, Brill's Extra Early Eureka, Brill's Nonesuch, Brill's Second Early Long Island. Entered as *Eureka, Extra Early Eureka, Nonesuch*, and *Second Early Long Island.*

Bristol. *Y&H.*

Bristol Flat Dutch. Pri. For similar names see *Flat Dutch.*

Bristol Improved Late Flat Dutch. Entered as *Bristol Late Flat Dutch.*

Bristol Late Flat Dutch. *CE* Ree. For similar names see *Large Late Flat Dutch.*

Bruce's Winter. Bru.

Brunning's Early Flat Head. Bng.

Similar names. See *Early Summer Flat Head.*

Brunning's Early Jersey Wakefield, Brunning's Excelsior Late Flat Dutch. Entered as *Early Jersey Wakefield* and *Excelsior Late Flat Dutch.*

Brunswick. Ger Hrs Mau JMM *Put.* For similar names see *Fottler's Brunswick.*

Seedsmen's synonyms. *Fottler's Drumhead,* Hrs.

Brunswick Short Stem. Bow Fer Mau Loh Pks HP.

Similar names. See *Fottler's Brunswick.*

Seedsmen's synonyms. *Fottler's Early Drumhead,* Fer Loh HP Pks. *Fottler's Drumhead,* Bow.

Buckbee's Christmas King, Buckbee's Extra Early Large Queen, Buckbee's Faultless, Buckbee's Great Dane, Buckbee's Mammoth Late Bridgeport Drumhead, Buckbee's Race Horse, Buckbee's Rockford Market. Entered as *Christmas King, Extra Early Large Queen, Faultless, Great Dane, Mammoth Late Bridgeport Drumhead, Race Horse,* and *Rockford Market.*

Buffalo Market. Hrv.

Buist's Earliest. Bui. For similar names see *Earliest.*

Buist's Early Drumhead, Buist's Early Flat Dutch, Buist's Early Large York, Buist's Early York, Buist's Florida Header, Buist's Improved Large Late Drumhead, Buist's Improved Large Late Flat Dutch, Buist's Prize Medal Drumhead, Buist's Prize Medal Flat Dutch, Buist's Short Stem Brunswick. Entered as *Early Drumhead, Early Flat Dutch, Early Large York, Early York, Florida Header, Buist's Large Late Drumhead, Buist's Large Late Flat Dutch, Prize Medal Drumhead, Prize Medal Flat Dutch,* and *Short Stem Brunswick.*

Buist's Large Late Drumhead. Bui.

Similar names. See *Large Late Drumhead.*

Buist's Large Late Flat Dutch. Bui. For similar names see *Large Late Flat Dutch.*

Buncombe. Alx Hst MWJ McM Wlt Wd.

Seedsmen's synonyms. *North Carolina,* Hst Wlt Wd.

Burpee's All Head, Burpee's Early All Head, Burpee's Large Flat Dutch, Burpee's Large Late Flat Dutch, Burpee's Late Stonehead, Burpee's Round Head, Burpee's Safe Crop, Burpee's Short Stem Drumhead, Burpee's Sure Head, Burpee's World Beater. Entered as *All Head, Early All Head, Large Flat Dutch, Large Late Flat Dutch, Late Stonehead, Round Head, Safe Crop, Short Stem Drumhead, Sure Head,* and *World Beater.*

Burr's Large Flat Dutch. Entered as *Large Flat Dutch.*

Burwell's Extra Flat Dutch, Burwell's Flat Dutch. Entered as *Extra Flat Dutch* and *Flat Dutch.*

Buxton Red Drumhead. S&F. For similar names see *Red Drumhead.*

Cannon Ball. Anb Wdr.

Similar names. Poole's Cannon Ball, Early Cannon Ball, Danish Cannon Ball.

Seedsmen's synonyms. *Danish Ball Head,* Wdr. *German Export,* Wdr. *Solid Emperor,* Wdr.

Carolina Hard Header. J&S. For similar names see *Hard Heading.*

Cassel. Dlw.

Centennial Late Flat Dutch. Hst. For similar names see *Large Late Flat Dutch.*

Champion Late Drumhead. M&S. For similar names see *Large Late Drumhead.*

Champion Late Flat Dutch. M&S. For similar names see *Early Champion.*

Charleston Wakefield. Bak Brt Bkt Blg Bow Bri Bru Buc Bui Bur Brr C&J *Cam CE* C&B Col *Crg* Crs CA Dlw D&H Drr Eic Elt Fer Fld Frd Gdn GH Gra Ggy Gfg G&T TG Hde Hrs Hst Hen Hlm H&P Iml Jac MWJ RHJ J&S *Jns* Ken Kg Lam *Lan* Lnr *LB* Mgd Man PM Mns Mau JCM JMM Neb Nef Nol NK HP Pir Pnt Ptt Poo Por Pot Qkr Raw Roc S&R SC Shw Shm Sie Spf S&H S&W Tat Tex Thm Thr Til Vl Vau Vk Wea W&D Wd Wdr WS Yng.

Similar names. See *Early Jersey Wakefield.*

Seedsmen's synonyms. *Early Large Jersey Wakefield*, C&J MWJ. *Improved Jersey Wakefield*, D&H. *Large Early Wakefield*, CA Pir. *Large Headed Wakefield*, Spf. *Large Jersey Wakefield*, Brt Bkt Bri Bui Eic Shw, etc. *Large Wakefield*, Buc Bur Drr Fer Hen Liv, etc.

Chase's Excelsior. Entered as *Excelsior.*

Chester King. SB For similar names see *Autumn King.*

Chester Savoy. SB. For similar names see *Savoy.*

Chicago Market. Lnr.

Similar names. Chicago Market Garden. Market Gardener's No. 2, Johnson & Stokes' Market Gardener's No. 2.

Seedsmen's synonyms. *Vandergaw*, Lnr.

Chicago Market Garden. Brd. For similar names see *Market Gardener's.*

Chinese Cabbage. Alx *Fqr* Thr *Vau.*

Seedsmen's synonyms. *Pe Tsai*, Alx Fqr Thr Tat Vau Vin.

Chow Bonneuil. Stk.

Seedsmen's synonyms. *St. Denis*, Stk.

Christmas King. Buc Roc. For similar names see *Autumn King.*

Cluster Savoy. Fle. For similar names see *Savoy.*

Colossal. Ebr Thr.

Similar names. Thorburn's Colossal.

Columbia. Man.

Similar names. Mann's Columbia.

Cone. Bdg HP.

Seedsmen's synonyms. *Early Winningstadt*, Bdg.

Cox's Early Spring, Cox's Flat Dutch. Entered as *Early Spring* and *Flat Dutch.*

Crescent City Flat Dutch. Eic Stk. For similar names see *Flat Dutch.*

Crescent City Late Flat Dutch. Eic Stk. For similar names see *Large Late Flat Dutch.*

Crown Jewel. M&S.

Crystal Summer Savoy. Drr. For similar names see *Savoy.*

Curled Drumhead Savoy. Fqr S&F. For similar names see *Drumhead Savoy.*

Curled Globe Savoy. Fqr Gry Raw S&F SB Wea.

Similar names. See *Green Globe Savoy.*

Curled Perfection Drumhead Savoy. Bdg Mhl.

Similar names. See *Perfection Drumhead Savoy.*

Curled Savoy. Bgg Bui. For similar names see *Green Curled Savoy.*

Currie's Early Market, Currie's Early Wakefield, Currie's Eclipse, Currie's Long Keeping, Currie's Premium Flat Dutch. Entered as *Early Market, Early Wakefield, Eclipse, Long Keeping*, and *Premium Flat Dutch.*

Dallwig's Early Dark Red. Entered as *Early Dark Red.*

Danish. C&J Hrs JCM. For similar names see *Danish Ball Head.*

Seedsmen's synonyms. *Hollander*, C&J JCM.

Danish Ball Head. Alx Alr Ar Brd Brt Btl Bkt Bel Bow Bgg Brk Bgs Bru Bui Brb Bur Brr *CE* Cle C&B Col CF Cox Chm D&H Del *DD* Drr Ebe Eic Elt Emr *RE* Fmr Fqr Fer Frd Gls Gdn GH Gra Gng Ggy G&T Grw TG Hns Ham Hde Hrs Hrm Hrv Hst *Hly* Hlm Hop Hse Iml Iow *MWJ* J&S Kei *K&W* Kg Koe

Lam Lan Lnr LB Liv JL PM Mau Mns JMM McK Mic Mhl Mls Neb Nol Old Pac Pg Pks HP JMP Pir Pne Pnt Ptt Por Pri Qkr Ree Roc Rs S&R S&F Shw Shm Sim Sox SB Stw S&H S&W Tem Tex Thm Thr AGT Tlh Trm T&B Vau Vk *Wat* Wea Web Wll Wdr Yng *Y&H*.

Similar names. Ball Head, Hammond's Danish Ball Head, Improved Danish Ball Head, Vick's Improved Danish Ball Head, Summer Danish Ball Head, Winter Danish Ball Head, Danish Winter, Danish Round Winter, Summer Ball Head.

Seedsmen's synonyms. *Amager*, Bui Fqr TG. *Cannon Ball*, Wdr. *Danish Round Winter*, Crs. *Dutch Cabbage*, Fer. *Dutch Winter*, Col Eie Hen Trm. *German Export*, Col Fer Eie Wdr. *Holland*, Elt Hen NK JL PM Fmr. *Hollander*, Bkt Btl Blg Bui Drr Fqr, etc. *Solid Emperor*, Fqr Fer Frd Hrs Fld Wdr, etc. *Winter*, Gls.

Danish Cannon Ball. *Ewg.* For similar names see *Cannon Ball.*

Danish Large Dark Red Drumhead. M&S.

Similar names. See *Red Drumhead.*

Danish Red. *M&S.*

Danish Round Winter. Brn *Bur* Crs Jns.

Similar names. See *Danish Ball Head.*

Seedsmen's synonyms. *Danish Ball Head*, Crs.

Danish Stone Ball. *Mhl.*

Danish Winter. Buc Gls Hrs Hrv K&W JCM.

Similar names. See *Danish Ball Head.*

Dark Red Drumhead. Fqr Wea. For similar names see *Red Drumhead.*

Dark Red Dutch. Vau. For similar names see *Red Dutch.*

Dark Red Erfurt. Cle Hrn McK Neb Pnt Ren. For similar names see *Red Erfurt.*

Seedsmen's synonyms. *Early Blood Red Erfurt*, Neb Pnt.

Deep Head. Dun *Jns* Loh Mau May OV Pir *Tpk* Y&H.

Similar names. Early Deep Head, Gregory's Deep Head.

Deep Head Brunswick. Fqr. For similar names see *Fottler's Brunswick.*

De Vertus Savoy. Vau. For similar names see *Vertus.*

Diamond Winter. Ggy J&S.

Dickmann-Dusard Seed Co.'s Giant Summer. Entered as *Giant Summer.*

Dobbie's Red. Gra. For similar names see *Early Dark Red.*

Dreer's Crystal Summer Savoy, Dreer's Early Drumhead, Dreer's Late Flat Dutch. Entered as *Crystal Summer Savoy, Early Drumhead*, and *Late Flat Dutch.*

Drumhead. Ebe Ewg Fld Gra Hnt RHJ Rtk.

Similar names. Buist's Prize Medal Drumhead, Prize Medal Drumhead, Large French Drumhead, Silver Leaf Drumhead, Stein's Drumhead, Hastings' Florida Drumhead, Florida Drumhead, Houseman Drumhead. See also *Early Drumhead, Large Late Drumhead, Premium Drumhead.*

Seedsmen's synonyms. *Stone Mason*, Pug.

Drumhead Savoy. Bai Bak Btl Bel CE Crg CA *Eie* Evr Ger Ggy Grw Hns Hde Hrv Jac Koe Kos Lan JL Mnd Mau May JCM McK McM MV Mzy NK Por Raw Ren S&R Shw Sie Sox Stk Thm Trm *Vl Wat.*

Similar names. Thorburn Drumhead Savoy, Late Drumhead Savoy, Large Drumhead Savoy, Imperial Drumhead Savoy, Improved Drumhead Savoy, Curled Drumhead Savoy, Market Gardener's Private Stock Drumhead Savoy.

Drumhead Vertus Savoy. RE SB. For similar names see *Vertus.*

Dutch Early Drumhead. Bdg McK. For similar names see *Early Drumhead.*

Seedsmen's synonyms. *Early Dutch*, Bdg. *Battersea*, Bdg.

Dutch Hollander. Bel. For similar names see *Hollander.*

Dutch Large Late Deep Red Drumhead. Sim.

Similar names. See *Red Drumhead.*

Dutch Red Drumhead. JMM Mhl Pg. For similar names see *Red Drumhead.*

Seedsmen's synonyms. *Improved Red Dutch*, Pg.

Dutch Winter. Buc *Ham* Kra *LB* Mgd Roe Sal Tem Trm Vau.

Dwarf Green Curled Savoy. Ger Vk. For similar names see *Green Curled Savoy.*

Dwarf Savoy. Bow.

Similar names. Early Dwarf Savoy.

Seedsmen's synonyms. *Green Globe*, Bow.

Dwarf Ulm Savoy. Cur Hrv Mas May NI Sim *Tpk.*

Similar names. See *Early Dwarf Ulm Savoy.*

Earliest. Ggy M&S Rim.

Similar names. Arrington's Earliest, Buist's Earliest, Everitt's Earliest, Johnson & Stokes' Earliest, Landreth's Earliest, Minnesota's Earliest, Salzer's Earliest, Sutton's Earliest of All, Bolgiano's Early, Earliest Round Head, Lohrman Seed Co.'s Earliest Round Head, Faust's Earliest of All.

Earliest of All. Eas Hde Pnt. For similar names see *Earliest.*

Seedsmen's synonyms. *Very Early Etampes*, Fer. *Wonderful*, Fer.

Earliest Pointed. Kg.

Similar names. King's Earliest Pointed.

Earliest Round Head. Gng Loh. For similar names see *Earliest.*

Earliest White Giant. Mzy Vau. For similar names see *Autumn Giant.*

Early All Head. Anb Bak Btl Ber Buc Bur *CE* Cle Col CF Crs CA Del Drr Eic *RE* Evr Fmr Fld Frd Gls GH Grw Hns Ham Hrn Hrs Hst Hbt H&C Hlm Hop H&P Iow J&S Kg Kra *Lan* Lnr *LB* Liv JL Loh Mgd *PM* Mns Mau JCM JMM McK Mhl Mls *Nol* NK OV Old Pg JMP Pnt Ree Ren Ree Rim Roc Sal S&B Shw Shm Sie Sim Sox SB Stw S&H Tem Tex TB Thm Til *Tpk* Trm Vl Vau Vk W&D Wer Wd Wdr WS Wyg Yng Y&H.

Similar names. See *All Head.*

Seedsmen's synonyms. *Solid South*, Crs Ham.

Early Bacalan. Bdg.

Seedsmen's synonyms. *Early Nonpareil*, Bdg. *Early Jersey Wakefield*, Bdg.

Early Blood Red. Brn H&P Kei Vk. For similar names see *Early Dark Red.*

Early Blood Red Dwarf Erfurt. Bui. For similar names see *Red Erfurt.*

Early Blood Red Erfurt. Bur Col Cur Dlw Fst Ggy Hst Neb Pnt W&D Wer Wyg.

Similar names. See *Red Erfurt.*

Seedsmen's synonyms. *Dark Red Erfurt*, Neb Pnt.

Early Brunswick. Lan Yng. For similar names see *Fottler's Brunswick.*

Seedsmen's synonyms. *Fottler's Improved Drumhead*, Yng.

Early Cannon Ball. *Bur* Fst McM Pir Ree. For similar names see *Cannon Ball.*

Early Champion. Pg.

Similar names. Tait's Champion, Champion Late Flat Dutch.

Early Charleston Wakefield. Alx Del Rs Yng.

Similar names. See *Early Jersey Wakefield.*

Early Cracker Jack. *Mau.*

Early Dark Red. Dlw Ebe.

Similar names. Dallwig's Early Dark Red, Dobbie's Red, Early Blood Red, Large Blood Red.

Early Dark Red Dutch. *RE* Fqr Mgd SB. For similar names see *Red Dutch.*

Early Dark Red Erfurt. Gra Hde RHJ Kos. For similar names see *Red Erfurt.*

Early Deep Head. Cam Cle Dlw Ggy Kg Liv McM.

Similar names. See *Deep Head.*

Early Drumhead. Anb Ar Bak Blg Bou Bow Bgs Bui Cam Cox Crg Drr Drm Fer Gdn GH Grw TG Hde Hly Jac MWJ *Kg* Lam Lan JL May *Mel* Mhl M&S Pac Pks JMP Pnt Shw Spf Stk Tat Tex Tpk Wlt Wd WS.

Similar names. Extra Early Drumhead, Bolgiano's Early Drumhead, Buist's Early Drumhead, Dreer's Early Drumhead, Dutch Early Drumhead, Swiss Early Drumhead, Bloomsdale Early Drumhead, Improved Early Drumhead, Reedland's Early Drumhead, McMillan's Perfection Early Drumhead, Perfection Early Drumhead, St. John's Day Early Drumhead. See also *Drumhead*, *Large Late Drumhead*, *Premium Drumhead*.

Seedsmen's synonyms. *Battersea*, Tat. *Fottler's Brunswick*, Bgs. *Johnsday Drumhead*, Bak.

Early Dwarf Dark Red Erfurt. SC. For similar names see *Red Erfurt*.

Early Dwarf Flat Dutch. Anb Ar Brd Btl Bow Bur CE Cle Drm Fst Fer Gdn GH G&T Hns Hst H&C Iml *Kei* Ken Lam Lnr LB Liv PM May JCM JMM Min Nef OV HP JMP Pnt Qkr Roc SC Thm Til *Tpk* Wyg.

Similar names. See *Early Flat Dutch*.

Early Dwarf Savoy. Eic Mnd MV *Sox* Stk Thr Vl.

Similar names. See *Dwarf Savoy*.

Early Dwarf Ulm Savoy. Brd Bdg Bri Cur Dlw Elt Ewg Fer Ger Gra H&P Ken JMP Ree SC S&W *Til* W&D Wer.

Similar names. Dwarf Ulm Savoy, Ulm Savoy, Early Ulm Savoy.

Early Dwarf York. Bur *CE* Cle Cox Fst Hbt H&C *Kei* Mgd PM May JCM Neb Rce Shw S&O SB Thm.

Similar names. See *Early York*.

Early Etampes. Anb Bkt Bel Brk Brn Bru Bui *LB* Bur *Cam CE* Crs CA Evr Ewg Fqr Fer Gra Grw TG Hst Hbt RHJ J&S *Kei* Ken Lam Lan *LB* Liv JL PM Mau *May* McK Nol Pg JMP Qkr Raw Ree Ren Rce Roc S&O Sox Tem Trm Vau Vin.

Similar names. Extra Early Etampes, Etampes.

Early Eureka. Shw. For similar names see *Eureka*.

Early Express. Ar *Chl* Cle *D&H* Jns Lnr Mau Sox Vin *Wat* Wll.

Similar names. See *Express*.

Early Favorite Savoy. SB. For similar names see *Savoy*.

Early Flat Brunswick. M&S. For similar names see *Fottler's Brunswick*.

Early Flat Dutch. Alx Bak Blg Bou Bdg Bri Brn Bng Bui Brr Cam *CE* CF Crg Crs Cur CA *Ebe* Ebr Eic Emr Evr GH Grw TG Hde Hrn Hlm Hnt H&P Jac MWJ J&S Jns Kg Koe Kra Lan *LB* JL Mgd Mns Mau McM Mic *Mhl* MV Mzy Nol NI Pac Pir *Pnt* Ptt Por Raw Ree RP Sal S&R Shw S&O Sox Spf Stk SB S&W Tex Thr Tpk Trm Vl Vau *Wat* Web Wer Wlt Wd WS.

Similar names. Early Dwarf Flat Dutch, Bloomsdale Early Dwarf Flat Dutch, Improved Early Dwarf Flat Dutch, Bolgiano's Early Flat Dutch, Buist's Early Flat Dutch, Maule's Early Flat Dutch, Stein's Early Flat Dutch, Newark Early Flat Dutch, Newark Flat Dutch, Improved Early Flat Dutch, McMillan's Improved Early Flat Dutch.

See also *Flat Dutch*, *Premium Flat Dutch*, *Large Late Flat Dutch*.

Seedsmen's synonyms. *Early Summer*, Bdg.

Early Flat Head. *Thm.*

Early French. Tat. For similar names see *Early French Ox Heart*.

Early French Ox Heart. Ber Blg *CE* C&B Drr Ebe Ken Rce Shm Sim SB.

Similar names. Early French, French Ox Heart, Ox Heart, Early Ox Heart, Large Early Ox Heart, Large Ox Heart.

Early Gem. M&S.

Similar names. Moore & Simon's Early Gem.

Early German Brunswick. Sim. For similar names see *Fottler's Brunswick*.

Early Giant. Evr. For similar names see *Autumn Giant*.

Early Green Curled Savoy. Mhl Wat.

Similar names. See *Green Curled Savoy*.

Early Harvest. Hop. For similar names see *Harvest Home*.

Early Jersey Wakefield. Alx Alr Anb Ar Bai Bak Brd Bel Ber Bou Bow Bgg Brk Bdg Bgs Brn Bru Bng Buc Bui Brb Bur Brr C&J Cam CE C&B Col CF Cok Cox Crg Crs Cur CA Chm Del D&C Drr Drm Dun Eas Ebe Eic Elt Emr RE Evr Fmr Fqr Fst Fax Fer Fld Fle Frd Ger Gls Gdn Gra Gng *GN* Ggy Gry Gfg G&T Grw TG Hns Ham Hde Hrm Hrs Hrv Hst Haw Hen H&C Hly Hop Hse Hnt H&P Iml Iow Jac Jer J&M *J&S* Jns *Kei* K&W K&F Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Lon Mnd Mgd PM Mns Mas May JCM JMM McK Mel Mic Mhl Mls Min MV Mzy Neb Nol NI NK OV Old Pac Pks HP JMP Pir Prn Pne Pnt Ptt Poo Pot Pri Pug Qkr Raw Ree Ren Rce Roc RP SC S&F S&B Shw S&O Sim Sox SB Stw S&H Tat Tem Thm Thr Thb AGT Tlh Til Tpk Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wll Wlt Wd Wdr WS Wyg Yng.

Similar names. Extra Early Jersey Wakefield, Brunning's Early Jersey Wakefield, Hawkins' Early Jersey Wakefield, Johnson & Stokes' Early Jersey Wakefield, Jones' Early Jersey Wakefield, Olds' Early Jersey Wakefield, Rice's Early Jersey Wakefield, Tait's Early Jersey Wakefield, Wood's Early Jersey Wakefield, Wood, Stubbs & Co.'s Early Jersey Wakefield, Improved Jersey Wakefield, Improved Early Jersey Wakefield, Hammond's Improved Early Jersey Wakefield, McMillan's Improved Jersey Wakefield, Holmes' Jersey Wakefield, Shumway's Jersey Wakefield, Salzer's Jersey Wakefield, Jersey Wakefield, Large Jersey Wakefield, Large Early Jersey Wakefield, Large Wakefield, Harden's Large Wakefield, Improved Large Wakefield, Bell's Mammoth Wakefield, Mammoth Wakefield, Large Early Wakefield, Early Wakefield, Currie's Early Wakefield, Maule's Prize Wakefield, Prize Wakefield, Early Long Island Wakefield, Washington Wakefield, Charleston Wakefield, Early Charleston Wakefield, Large Early Charleston Wakefield, Large Charleston Wakefield, Early Washington Wakefield.

Early Large York. Alx Anb Bai Bak Blg *Bow* Bui CE Cle CF Crs CA Emr Fmr Fer Fle Gdn GH Grw Hns Hde H&C Hlm RHJ Lea LB PM Mns May JCM Mhl Mls Min Neb Pnt Ree Roc RP SC Shw S&O Shm Tem Tex Thm Thr Tpk Trm Wea W&D Wlt.

Similar names. See *Early York*.

Seedsmen's synonyms. *Early Nonpareil*, Bdg. *Early Bacalan*, Bdg.

Early Long Island Wakefield. Chl. For similar names see *Early Jersey Wakefield*.

Early Louisville. JMM. For similar names see *Louisville Drumhead*.

Early Maine. Hrm.

Similar names. Harmon's Early Maine.

Early Market. Cur. For similar names see *Extra Early Market*.

Early May. Bdg.

Seedsmen's synonyms. *Early York*, Bdg. *Early Royal Dwarf*, Bdg.

Early Ox Heart. Bdg Crg Ggy RHJ Mas *May* Vin.

Similar names. See *Early French Ox Heart*.

Seedsmen's synonyms. *French Heart Shaped*, Bdg.

Early Paris Market. Gra. For similar names see *Paris Market*.

Early Paris Savoy. Fst Liv. For similar names see *Paris Market*.

Early Peerless. Hly *Pot* Roc Shm. For similar names see *Peerless*.

Early Premium Flat Dutch. Sim. For similar names see *Premium Flat Dutch*.

Early Quedlinburg Winningstadt. Thm.

Similar names. See *Early Winningstadt*.

Early Red Dutch. Anb Ger Nef. For similar names see *Red Dutch*.

Early Red Dutch Erfurt. Drr JMM M&S Wea. For similar names see *Red Erfurt*.

Early Red Erfurt. Ggy Hrs Sox. For similar names see *Red Erfurt*.

Early Schweinfurt. Vin. For similar names see *Schweinfurt Quintal*.

Early Schweinfurt Quintal. *Kei* Sim. For similar names see *Schweinfurt Quintal*.

Early Small York. RHJ. For similar names see *Early York*.

Early Spring. Alr Anb *Ar Btl* Bkt *Bel* Blg Bow Bri Bru Bng Buc Bur *Brr* C&J Col Cox Cur *Dlw D&H* DD Drr Drw *Dun* Ebe *Ewg Fmr* Fqr Fer Frd Gls Gdn Gra Gng Ggy *Gry* G&T Ham Hrn *Hrs* Hen *Hly* H&P Iml J&S Jns Kg Kra Lam Lan Lnr Liv JL Mgd Man *Mns* Mau May JMM McK Neb OV Pnt Raw Ree Ren Rce Roc Sal S&F *Shm* Sim S&H *S&W* Tem Thr *Til Tpk Vl* Vau Vk W&D Wdr WS Wyg Y&H.

Similar names. Cox's Early Spring, Henderson's Early Spring, King's Eary Spring, Extra Early Spring.

Seedsmen's synonyms. *Flat Parisian*, Cur.

Early Standard. Buc Ewg.

Early Succession. Blg JMP. For similar names see *Succession.*

Early Sugar Loaf. Eic Min SB Thr. For similar names see *Sugar Loaf.*

Early Summer. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel *Ber* Blg Bow Bgg Brk Bgs Bri Brn Bru Buc Bui Brb Bur Brr C&J Cam Cle C&B Col CF Crg Crs Cur CA Dlw Del Drr Drm Dun Ebr Eic Elt Emr RE Evr Ewg Fqr Fst Fax Fer Fle Frd Ger Gls Gdn GH Gra Gng Ggy Gry Gfg Grw TG Hns Hde Hrm Hrn Hrv Hst Hen Hbt H&C Hlm Hop Hnt H&P Iml Iow Jac MWJ J&S Jns Kei K&W Ken Kg Kos Kra Lam Lea Lnr Liv Mnd Man PM Mns Mas Mau May JCM JMM McK McM Mel Mic Mhl *Mls* MV M&S Mzv Neb Nol NK OV Old Pac Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Raw Ree Ren Rce Roc Rt Rs RP S&R SC S&F S&B S&O Shm Sie Sox Spf Stk SB S&W Tat Tem Tex TB Thr Thb AGT Tlh Til Tpk Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wer Wll Wd Wdr WS Yng Y&H.

Similar names. Henderson's Early Summer, Rawson's Early Summer, New York Early Summer, Henderson's Summer, Dickmann-Dusard Seed Co.'s Giant Summer, Giant Summer, Large Early Summer, Improved Early Summer.

Seedsmen's synonyms. *Early Flat Dutch*, Bdg. *Excelsior*, Ebr.

Early Summer Flat Head. Dlw Lan Stw Thm *Vl.*

Similar names. Landreth's Early Summer Flat Head, Brunning's Early Flat Head.

Early Sure Crop. *Mls.* For similar names see *Sure Crop.*

Early Surprise. May OV *Tpk.*

Similar names. May's Early Surprise.

Early Ulm Savoy. Ggy RHJ Thr Vau.

Similar names. See *Early Dwarf Ulm Savoy.*

Early Victoria Savoy. SB. For similar names see *Victoria Savoy.*

Early Vienna Savoy. Thr. For similar names see *Savoy.*

Early Wakefield. Buc Cur Ken. For similar names see *Early Jersey Wakefield.*

Early Washington Wakefield. *LB.*

Similar names. See *Early Jersey Wakefield.*

Early Winningstadt. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Blg Bou Bow Bgg Brk Bdg Bgs Brn Bru Bui Brb Bur Brr Brw C&J *Cam* CE Cle C&B Col CF Cok Cox Crg Crs Cur CA D&H Del Drr Drm Dun Eas Eic Elt Emr RE Evr Ewg Fmr Fst Fer Fld Fle Frd Ger *Gls* Gdn GH Gng Ggy Gry Grw TG Hns Hde Hrm Hrv Hst Hen H&C Hly Hlm Hop Hop Hse Hnt Iml Iow Jac RHJ J&M J&S Jns *Kei* K&W Ken Kg Kra Lam Lea Lnr LB Liv JL Loh Mnd *PM* Mns Mas May JCM JMM McK Mel Mic Mhl Mls Min MV M&S Mzy Neb Nef Nol NI NK OV Pac Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Qkr Raw Ree Ren Rce *Rum* Rs RP Sal SC Shw Shm Sie Sim Sox Spf Stk SB S&W Tat Tem Tex TB *Thm* Thr Thb AGT Tlh Til Tpk Trm T&B Vl Vau Vk Vin Wat Web Wer Wll Wlt Wdr Wyg Yng Y&H.

Similar names. Rice's Early Winningstadt, Improved Early Winningstadt, Early Quedlinburg Winningstadt, Extra Early Winningstadt, Winningstadt, Hawkins' Winningstadt, Maule's Winningstadt.

Seedsmen's synonyms. *Early Cone*, Bdg.

Early Wyman. Bgs.

Early Yellow Curled Blumenthaler. Dlw.

Early York. Anb Ar Bai Brd Btl Ber Bow Brk Bdg Bgs Brn Bui *Cam* CE CF Crg Cur *Eic* Emr Evr Ewg Fqr Fer Ger Ggy GH Hrs Grw TG Hns Hde Hst Hen Hlm Hnt Jac *RHJ* J&M Jns *Kei* Ken Kg Lam Lea Lnr LB JL Mnd Min MV NK Pac Pks Ptt Por Pot Pug *Rtk* Ren RP Sal S&R S&F Sox Stk S&H S&W Tex TB Thr Trm T&B Vl Vau Vin Wer Wd Wyg Yng.

Similar names. Buist's Early York, Large Early York, Extra Early York, Early Small York, Early Dwarf York, Large York, Early Large York, Bolgiano's Early Large York, Buist's Early Large York, Late York.

Seedsmen's synonyms. *Early May*, Bdg. *Early Royal Dwarf*, Bdg.

Eclipse. Cur.

Similar names. Currie's Eclipse.

Eichling's Early All Head, Eichling's Flat Dutch, Eichling's Solid South, Large Late Flat Dutch. Entered as *Early All Head*, *Flat Dutch*, *Solid South*, and *Large Late Flat Dutch*.

Emerald King. Hst. For similar names see *Autumn King*.

Emperor. Raw. For similar names see *Solid Emperor*.

Seedsmen's synonyms. *Ball Head*, OV. *Export*, OV. *Hollander*, OV.

English Curled Savoy. Brk Emr Raw S&F.

Similar names. See *Green Curled Savoy*.

Seedsmen's synonyms. *Globe Savoy*, Brk.

Erfurt Large Red Drumhead. Pri. For similar names see *Red Drumhead*.

Etampes. Drr Emr Hrs Mnd JMM MV Mzy *Sox* Thm.

Similar names. See *Early Etampes*.

Eureka. Brd D&H Hrs Iml Nol.

Similar names. Brill's Eureka, Early Eureka, Extra Early Eureka, Brill's Extra Early Eureka.

Evans' Improved Savoy. Entered as *Evans' Savoy*.

Evans' Savoy. RE. For similar names see *Savoy*.

Everitt's Earliest. Evr. For similar names see *Earliest*.

Everitt's Early Giant, Everitt's Large Late Flat Dutch, Everitt's Late White Dutch, Everitt's Short Stem Drumhead. Entered as *Early Giant*, *Large Late Flat Dutch*, *Late White Dutch*, and *Short Stem Drumhead*.

Excelsior. Alr Anb Btl Gry Hns Iow Liv JL Sal Sie.

Similar names. Chase's Excelsior, Van Namen's Excelsior, Excelsior Flat Dutch, Excelsior Large Flat Dutch, Excelsior Late Flat Dutch, Alneer's Excelsior Large Late Flat Dutch, Excelsior White Dutch, Van Namen's Excelsior Early White Dutch, Excelsior Early White Dutch.

Seedsmen's synonyms. *Improved Early Summer*, Ebr. *Large Late Flat Dutch*, Bdg. *Premium Flat Dutch*, Bdg.

Excelsior Early White Dutch. Joo. For similar names see *Excelsior*.

Excelsior Flat Dutch. Elt TG Neb Pir Rt Tpk W&D.

Similar names. See *Excelsior*.

Excelsior Large Flat Dutch. C&J Chl Del Frd Hrs.

Similar names. See *Excelsior*.

Excelsior Large Late Flat Dutch. Shm.

Similar names. See *Large Late Flat Dutch*.

Excelsior Late Flat Dutch. Bng *CE* Gra Rce Til.

Similar names. See *Excelsior*.

Excelsior White Dutch. Ebe. For similar names see *Excelsior*.

Express. Anb Bkt Bru Cur D&H Drr Ggy Kei MV Mzy Neb NK Poo *Sox* Thr Trm.

Similar names. Henderson's Express, Early Express, Maule's Early Express, Extra Early Express, Hammond's Extra Early Express, Lightning Express, Lightning, Salzer's Lightning.

Seedsmen's synonyms. *Extra Early Etampes*, Ebr.

Extra Early Alpha. Shw. For similar names see *Alpha.*

Extra Early Blood Red Drumhead. McK.

Similar names. See *Red Drumhead.*

Extra Early Blood Red Erfurt. Qkr Raw. For similar names see *Red Erfurt.*

Extra Early Cocoanut. M&S.

Similar names. Moore & Simon's Extra Early Cocoanut.

Extra Early Dark Red Erfurt. Drm Fmr HP Vau.

Similar names. See *Red Erfurt.*

Extra Early Drumhead. Cam. For similar names see *Early Drumhead.*

Extra Early Etampes. Btl Cle Crs RE Fmr Hns May OV Shm Sim SB *Tpk Vk.*

Similar names. See *Early Etampes.*

Seedsmen's synonyms. *Express*, Ebr.

Extra Early Eureka. Col Ebe Frd Pot *Wer.* For similar names see *Eureka.*

Extra Early Express. Bak Brd Blg Bow Bgs Bru Bui Bur C&J *CE* Col Crs Del Drm RE Ewg Fqr Fer Frd Gra Gng Grw TG Hns Ham Hst Hbt H&C Hlm Hop Hse Iow MWJ RHJ J&S *Kei* Kg Lam *LB* Liv Mgd Man PM May *JCM* McK Nol Pac Pg JMP Por Pug Qkr Ree Ren Rce Roc S&R S&F S&B S&O Shm Sim SB Tem Vau WS Yng.

Similar names. See *Express.*

Extra Early Ideal. Nol. For similar names see *Ideal Winter.*

Extra Early Jersey Wakefield. Brt Bkt Bri *Con* Hrn Pg Por Pug S&R Sie Spf Tat TB *Thr* Y&H.

Similar names. See *Early Jersey Wakefield.*

Extra Early Large Queen. Buc. For similar names see *Market Queen.*

Extra Early Market. Alx.

Similar names. Currie's Early Market, Salzer's Improved Market, Early Market.

Extra Early Pilot. Tat.

Similar names. Tait's Extra Early Pilot.

Extra Early Queen. Roc. For similar names see *Market Queen.*

Extra Early Red Dutch Erfurt. Sim. For similar names see *Red Erfurt.*

Extra Early Spring. C&J *Ebr.* For similar names see *Early Spring.*

Extra Early Winningstadt. Buc Roc Shm.

Similar names. See *Early Winningstadt.*

Extra Early York. Web. For similar names see *Early York.*

Extra Flat Dutch. *Blg* Brw. For similar names see *Flat Dutch.*

Extra Large Flat Dutch. Blg. For similar names see *Large Late Flat Dutch.*

Farmer Seed Co.'s Earliest. *Fmr.*

Faultless. Buc Lnr Roc Shm Vau Wyg.

Similar names. Buckbee's Faultless, Leonard's Faultless, Shumway's Faultless.

Faust's Earliest of All. Fst. For similar names see *Earliest.*

Faust's Prize Head Late Flat Dutch. Entered as *Prize Head Late Flat Dutch.*

Ferry's Late Premium Drumhead, Ferry's Late Premium Flat Dutch. Entered as *Late Premium Drumhead* and *Late Premium Flat Dutch.*

Filderkraut. Bdg Bgs Brn Bru Bur *CE* Col Crs Dlw Drm Ebe Emr Fmr Fst Fer Fle GH Ggy Jns Lam Liv *Mns* Man McK MV Mzy Ren Ree Roc RP S&O Shm Sim *Sox* SB Thr Til Vau Wea W&D.

Similar names. German Filderkraut.

Seedsmen's synonyms. *Filder*, Ree. *Pomeranian*, Bdg Ren. *Pomeranian Painted Head*, Mzy Thr.

First and Best. McK.

First Early. Mau. For similar names see *Archias' Extra Early.*

First in the Market. Mls.

Similar names. Mill's First in the Market.

Flat Brunswick. Drr. For similar names see *Fottler's Brunswick.*

Flat Dutch. Brw Cox Ebe Eic Gng H&C McM Poo W&D.

Similar names. Burwell's Flat Dutch, Burwell's Extra Flat Dutch, Extra Flat Dutch, Cox's Flat Dutch, Eichling's Flat Dutch, Boss Flat Dutch, Bristol Flat Dutch, Imperial Flat Dutch, McMillan's Improved Flat Dutch, Crescent City Flat Dutch, Long Island Medium Flat Dutch, Northern Giant Flat Dutch, Ohio Medium Flat Dutch, Salzer's Giant Flat Dutch, Giant Flat Dutch, Tait's Victor Flat Dutch, Victor Flat Dutch, Thorburn's Market Gardener's Flat Dutch, Market Gardener's Private Stock Flat Dutch. See also *Early Flat Dutch, Premium Flat Dutch, Large Late Flat Dutch.*

Flat Intermediate. *Lan.*

Flat Parisian. Cur *McK* Mzy. For similar names see *Paris Market.*

Seedsmen's synonyms. *Early Spring,* Cur.

Flat Standard. *Lan.*

Florida Drumhead. Hst. For similar names see *Drumhead.*

Florida Header. Bou Bui Cam Gdn Jac. For similar names see *Hard Heading.*

Foremost German. J&S *Wea.* For similar names see *German Export.*

Fottler's Blue Brunswick. Fmr Lnr. For similar names see *Fottler's Brunswick.*

Fottler's Brunswick. Alx Alr Anb Bai Bak Btl Bkt *Bel* Bou Bgg Brk Bgs Bri Brn Bng Bui Brb Brw C&J Cam C&B Cle CB Col Cur Dlw D&H D&C Dun Ebe Emr Evr Ewg Fqr Fst Frd Gls GH Gra Gng Gry Grw TG Hns Hrm Hrs Hlm H&P Iow Jac Hen *MWJ* Kei K&W Ken Kg Kos Kra Lea JL Mnd Mgd Man May JCM Mic *Mls* MV Mzy Nol OV JMP Pir Prn Pne Ptt Por Pot Pri Pug Raw Ree Roe Rt Rs RP Sal S&R S&F *Shr* S&O *Sie* Sim Sox SB S&H Tat Thr Thb AGT *Tlh* Tpk Vl Vau Vk Vin Wat Wea Web W&D Wer Wdr Wyg Y&H.

Similar names. Fottler's Blue Brunswick, Fottler's Early Brunswick, Fottler's Improved Early Brunswick, Fottler's Improved Brunswick, Fottler's Improved Flat Brunswick, Fottler's Flat Brunswick, Fottler's Improved Short Stem Brunswick, Fottler's Short Stem Brunswick, Fottler's Drumhead, Fottler's Early Drumhead, Fottler's Improved Drumhead, Fottler's Large Drumhead, Fottler's Large Improved Drumhead, Short Stem Brunswick, Large Short Stem Brunswick, Brunswick, Early Brunswick, Early Flat Brunswick, Improved Brunswick, Flat Brunswick, Improved Flat Brunswick, Large Flat Brunswick, Large Late Brunswick, Perry's Premium Brunswick, Premium Brunswick, Buist's Short Stem Brunswick, Giant Brunswick, Simon's Netted Savoy Brunswick, Deep Head Brunswick, Simmers' Early German Brunswick, Improved White Brunswick, Bloomsdale Brunswick, White Brunswick, Early German Brunswick.

Seedsmen's synonyms. *Early Drumhead,* Bgs. *Fottler's Early Drumhead,* Ger. *Large Late Brunswick,* Bdg. *Short Stem Drumhead,* Frd.

Fottler's Improved Brunswick, Fottler's Improved Drumhead, Fottler's Improved Early Brunswick, Fottler's Improved Flat Brunswick, Fottler's Improved Large Drumhead, Fottler's Improved Short Stem Drumhead. Entered as *Fottler's Brunswick, Fottler's Drumhead, Fottler's Early Brunswick, Fottler's Flat Brunswick, Fottler's Large Drumhead,* and *Fottler's Short Stem Brunswick.*

Fottler's Drumhead. Bow J&M *Kei* McK Ren Tem Thm Y&G.

Similar names. See *Fottler's Brunswick.*

Seedsmen's synonyms. *Brunswick Short Stem,* Bow. *Improved Brunswick,* Hrs. *Early Brunswick,* Yng.

Fottler's Early Brunswick. Brr CF Eas Ggy Haw Jns Lnr Tlh Til Yng.

Similar names. See *Fottler's Brunswick.*

Fottler's Early Drumhead. Fer Ger Hrv H&C Lam Loh *Mas* Min Pks HP.

Similar names. See *Fottler's Brunswick.*

Seedsmen's synonyms. *Brunswick Short Stem*, Fer Loh HP Pks. *Fottler's Brunswick*, Ger.

Fottler's Flat Brunswick. J&S. For similar names see *Fottler's Brunswick.*

Fottler's Large Drumhead. RE. For similar names see *Fottler's Brunswick.*

Fottler's Short Stem Brunswick. Brd Bru Gdn RHJ Liv Shm Sie.

Similar names. See *Fottler's Brunswick.*

French Market. Stk. For similar names see *Late French Market.*

French Ox Heart. Ren. For similar names see *Early French Ox Heart.*

Frotscher's Large Late Flat Dutch, Frotscher's Late Flat Dutch. Entered as *Large Late Flat Dutch* and *Late Flat Dutch.*

George Blue's Treasure. Evr.

Georgia Trucker *Wlt.*

German Drumhead. For similar names see *German Export.*

German Export. Bri Cle Fmr GH J&S M&S Ree Rs Shm *Tem* Wdr.

Similar names. German Drumhead, Large German Drumhead, Foremost German.

Seedsmen's synonyms. *Cannon Ball*, Wdr. *Danish Ball Head*, Col Fer Eic Liv Tem Wdr. *Dutch Cabbage*, Fer. *Dutch Winter*, Col Eic Liv. *Hollander*, Cle Fer Eic J&S Liv Rs, etc. *Improved Late Drumhead*, Fmr. *Solid Emperor*, Fer Liv Tem Wdr.

German Filderkraut. *Bow* Por Pug S&R Vin. For similar names see *Filderkraut.*

German Magdeburger. *Sie.*

Get-There-Eli. *Ham.*

Giant Blood Red Erfurt. D&H. For similar names see *Red Erfurt.*

Giant Brunswick. McK Ren. For similar names see *Fottler's Brunswick.*

Giant Flat Dutch. Sal. For similar names see *Flat Dutch.*

Giant Late Flat Dutch. Mls. For similar names see *Large Late Flat Dutch.*

Giant Red Dutch. Sal. For similar names see *Red Dutch.*

Giant Red Erfurt. Vau. For similar names see *Red Erfurt.*

Giant Summer. DD. For similar names see *Early Summer.*

Globe Savoy. Brk Bui Ebe. For similar names see *Green Globe Savoy.*

Seedsmen's synonyms. *English Curled Savoy*, Brk.

Golden Winter. Drr.

Grand Duke. Tat.

Similar names. Tait's Grand Duke.

Great Dane. Buc Roe.

Similar names. Buckbee's Great Dane.

Gregory's All Seasons, Gregory's Deep Head, Gregory's Hard Heading. Entered as *All Seasons, Deep Head*, and *Hard Heading.*

Green Curled Savoy. Bui Cam Ewg Gdn GH TG MWJ *Kei* Ken Lan JMM Stw Tat Til.

Similar names. Early Green Curled Savoy, Late Green Curled Savoy, Dwarf Green Curled Savoy, English Curled Savoy, Curled Savoy.

Green Glazed. Alx Bou Bur CF Crs Fst Fer Ggy GH Hst MWJ Lan *May* McM Shw Tat Thr Wlt Wd.

Similar names. Southern Green Glazed.

Green Glazed American. *RHJ.*

Green Globe Savoy. Bow *CE* Crs *Eic* RHJ Kos Lnr Ree Sal Stk.

Similar names. Globe Savoy, Curled Globe Savoy, Mammoth Globe Savoy.

Seedsmen's synonyms. *Dwarf Savoy*, Bow.

Gregory's Twiss. Entered as *Twiss.* For similar names see *Twiss.*

Griffing's Succession. Entered as *Succession.*

Haines' Perfection Late Beauty. Entered as *Perfection Late Beauty.*

Hammond's Danish Ball Head, Hammond's Extra Early Express, Hammond's Get-There-Eli, Hammond's Improved Early Jersey Wakefield. Entered as *Danish Ball Head, Extra Early Express, Get-There-Eli, Early Jersey Wakefield.*

Harnden's Large Late Premium Drumhead, Harnden's Large Late Premium Flat Dutch, Harnden's Large Wakefield. Entered as *Large Late Premium Drumhead, Large Late Premium Flat Dutch*, and *Large Wakefield.*

Hard Head Hollander. Nef Vl. For similar names see *Hollander.*

Hard Heading. Cle Col Fmr Fqr Frd Ggy Jns Kra Neb Rs Vau.

SIMILAR NAMES. Gregory's Hard Heading, Johnson & Stokes' Hard Heading Savoy, Hard Heading Savoy, Noll's Perfection Hard Heading, Perfection Hard Heading Savoy, Carolina Hard Header, Florida Header, Buist's Florida Header, Boston Hard Head, Hard Head Savoy, Rennie's Prize Hard Head, Prize Hard Head.

SEEDSMEN'S SYNONYMS. *Luxemburg*, Ggy Neb Fmr Frd Kra Rs, etc.

Hard Heading Savoy. J&S. For similar names see *Hard Heading.*

Hard Head Luxemburg. Iow. For similar names see *Luxemburg.*

Hard Head Savoy. M&S. For similar names see *Hard Heading.*

Harmon's Early Maine. Entered as *Early Maine.*

Harris' Short Stem. Hrs.

Harvest Home. CE Fmr LB NK.

SIMILAR NAMES. Lilly, Bogardus & Co.'s Harvest Home, Early Harvest.

Hastings' Centennial Late Flat Dutch, Hastings' All Head Early, Hastings' Emerald King, Hastings' Florida Drumhead, Hastings' Premier Brand, Hastings' Sure Crop. Entered as *All Head Early, Centennial Late Flat Dutch, Emerald King, Florida Drumhead, Premier Brand*, and *Sure Crop.*

Hawkins' Early Jersey Wakefield, Hawkins' Large Late Premium Flat Dutch, Hawkins' Sure Head, Hawkins' Winningstadt. Entered as *Early Jersey Wakefield, Large Late Premium Flat Dutch, Sure Head*, and *Winningstadt.*

Henderson's Autumn King, Henderson's Early Spring, Henderson's Early Succession, Henderson's Early Summer, Henderson's Express, Henderson's Late Flat Dutch, Henderson's Succession. Entered as *Autumn King, Early Spring, Early Succession, Early Summer, Express, Late Flat Dutch*, and *Succession.*

Henderson's Summer. Cur Fld RHJ K&F. For similar names see *Early Summer.*

Hollander. Alr Anb Ar Bai Brd Btl Bkt Ber Bow Brn Bru Brb *Bur* Brw C&J CE Cle C&B CF Cox Crs Cur Dlw D&H Ebe Eic Elt Emr Evr Fmr Fer Fld Fle Frd Ger Gls Gdn GH Ggy Grw TG Hns *Ham* Hrm Haw Hen H&C *Hly* H&P Iml *Iow* J&M J&S Ken Koe Kos Kra Lam Lan Lnr LB JL Loh Mgd PM May JCM Mic MV NK OV Old HP Pnt Qkr Rce Roc Rs Sal S&F S&O Shm Sox S&W Tem Tex TB Thm Thr AGT Tlh Til *Tpk* Trm Vau Web W&D Wll Wyg.

SIMILAR NAMES. Dutch Hollander, Red Hollander, Vaughan's Hollander, Hard Head Hollander.

SEEDSMEN'S SYNONYMS. *Amager*, Bui Fqr. *Ball Head*, OV, Roe. *Danish*, C&J JCM. *Danish Ball Head*, Bkt Btl Bow Bui Drr Fqr, etc. *Danish Ball Head Winter*, Thr. *Dutch Cabbage*, Fer. *Dutch Winter*, Buc Eic Gls Liv Mgd Tem, etc. *Emperor*, OV. *Export*, OV. *German Erfurt*, Cle Col Eic Fer GH Liv, etc. *Improved Danish Ball Head*, Iml. *Solid Emperor*, Brr Fqr Fer Liv.

Holmes-Houser. Bgg Hlm Mhl.

Holmes's Jersey Wakefield, Holmes's Perfection Large Late Flat Dutch. Entered as *Jersey Wakefield, Perfection Large Late Flat Dutch.*

Houseman Drumhead. Bow. For similar names see *Drumhead.*

Houseman Late Flat Dutch. Fer Fle *Rce.*

SIMILAR NAMES. See *Large Late Flat Dutch.*

Houser. *Alr CE Err Fmr Ggy Man S&W Thr Wea.*

Hundred Weight. Evr Fmr May OV.

Similar names. May's Hundred Weight.

Ideal. Sal. For similar names see *Ideal Winter.*

Ideal Winter. *D&H* Iml Liv.

Similar names. Livingston's Ideal Winter, Salzer's Ideal, Noll's Extra Early Ideal, Extra Early Ideal, Ideal.

Imperial Drumhead Savoy. Mns Min Pae Vin.

Similar names. See *Drumhead Savoy.*

Imperial Flat Dutch. Gfg. For similar names see *Flat Dutch.*

Improved All Seasons, Improved American Drumhead, Improved American Savoy, Improved Autumn King, Improved Brunswick, Improved Danish Ball Head, Improved Drumhead Savoy, Improved Early Drumhead, Improved Early Dwarf Flat Dutch, Improved Early Flat Dutch, Improved Early Jersey Wakefield, Improved Early Summer, Improved Early Winningstadt, Improved Flat Brunswick, Improved Jersey Wakefield, Improved Large American Drumhead, Improved Large Late Drumhead, Improved Large Late Flat Dutch, Improved Large Wakefield, Improved Late Drumhead, Improved Late Premium Drumhead, Improved Late Premium Flat Dutch, Improved Long Keeping, Improved Red Drumhead, Improved Red Dutch, Improved Red Dutch Erfurt, Improved Red Stone Head, Improved Savoy, Improved Stone Mason, Improved Succession, Improved Sure Head, Improved Vandergaw, Improved Large Late Drumhead, Improved White Brunswick, Improved Bristol. Entered as *All Seasons, American Drumhead, American Savoy, Autumn King, Brunswick, Danish Ball Head*, etc.

Iowa Seed Co.'s Short Stem Drumhead. Entered as *Short Stem Drumhead.*

Iron Head. *Van.*

Jersey Wakefield. Anb Btl Blg Cle D&H Drw *Eic* Ewg GH *Hst* Hbt Hlm MWJ Kei Kg Koe *Man* McM Nef Rim Sal Stk Tex Tpk Yng.

Similar names. See *Early Jersey Wakefield.*

Seedsmen's synonyms. *Charleston Wakefield*, D&H.

Johns Day Drumhead. Bak.

Johnson's Early Large Prize Head. MWJ.

Similar names. See *Large Late Flat Dutch.*

Johnson's Wonderful. Bgs. For similar names see *Wonderful.*

Johnson & Stokes' Earliest. Frd J&S. For similar names see *Earliest.*

Johnson & Stokes' Hard Heading Savoy, Johnson & Stokes' Market Gardener's No. 2, Johnson & Stokes' Matchless Late Flat Dutch. Entered as *Hard Heading Savoy, Market Gardener's No. 2*, and *Matchless Late Flat Dutch.*

Jones' Early Jersey Wakefield, Jones' Late Flat Dutch. Entered as *Early Jersey Wakefield*, and *Late Flat Dutch.*

King's Earliest Pointed, King's Early Spring, King's Market Gardener's Late Flat Dutch. Entered as *Earliest Pointed, Early Spring, Market Gardener's Late Flat Dutch.*

Koss' Short Stem Drumhead. Entered as *Short Stem Drumhead.*

Kramer's Premium Flat Dutch. Entered as *Premium Flat Dutch.*

Kraut King. *Sal.*

Landreth's All the Year Round, Landreth's Early Summer Flat Dutch, Landreth's Flat Standard, Landreth's Flat Intermediate, Large Late Mountain. Entered as *All the Year Round, Flat Standard, Early Summer Flat Dutch, Large Late Mountain*, and *Flat Intermediate.*

Landreth's Earliest. Lan Stw. For similar names see *Earliest.*

Large American Drumhead. Liv Ptt Sim Wdr.

Similar names. See *American Drumhead.*

Large American Premium Flat Dutch. RE.

Similar names. See *Premium Flat Dutch.*

Large Auber Savoy. Ebe.

Similar names. Large Aubervilliers.

Large Aubervilliers. Ewg Gra. For similar names see *Large Auber Savoy.*

Large Blood Red. Dlw. For similar names see *Early Dark Red.*

Large Bridgeport. *Shw.*

Large Bristol. Pri.

Similar names. Price & Knickerbocker's Large Bristol.

Large Charleston Wakefield. Brn Cox Cur Fst Fer H&C Hse Lan *May* Mhl Rce S&O *Wat.*

Similar names. See *Early Jersey Wakefield.*

Large Dark Red Drumhead. Ebe. For similar names see *Red Drumhead.*

Large Drumhead. Crg JL Pac Ren Tpk.

Similar names. See *Large Late Drumhead.*

Large Drumhead Savoy. Bui Kg JMP. For similar names see *Drumhead Savoy.*

Seedsmen's synonyms. *Large Globe Savoy*, Bdg.

Large Early Charleston Wakefield. M&S.

Similar names. See *Early Jersey Wakefield.*

Large Early Jersey Wakefield. Y&H.

Similar names. See *Early Jersey Wakefield.*

Seedsmen's synonyms. *Charleston*, C&J MWJ.

Large Early Ox Heart. M&S *Nol* Stk.

Similar names. See *Early French Ox Heart.*

Large Early Schweinfurt. Bdg. For similar names see *Schweinfurt Quintal.*

Large Early Summer. G&T. For similar names see *Early Summer.*

Large Early Wakefield. Crs CA Pir Tat.

Similar names. See *Early Jersey Wakefield.*

Seedsmen's synonyms. *Charleston Wakefield*, CA. *Charleston*, Pir.

Large Early York. Bur Drm *Hst Kei* Thr *Tim.* For similar names see *Early York.*

Large Flat Brunswick. Eic Stk. For similar names see *Fottler's Brunswick.*

Large Flat Dutch. Brr Crg PM Pac. For similar names see *Large Late Flat Dutch.*

Large French Drumhead. Sim. For similar names see *Drumhead.*

Large German Drumhead. D&H Sim. For similar names see *German Export.*

Large Jersey Wakefield. Brt Bkt Bri Bui Brw C&J CF Fld Gfg Hde Hrs MWJ Kra *LB* Pri Qkr Shw Vau.

Similar names. See *Early Jersey Wakefield.*

Seedsmen's synonyms. *Charleston*, Brt Bkt Bri Bui Eic Shw, etc.

Large Late Bridgeport Drumhead. H&P.

Similar names. See *Bridgeport Drumhead.*

Large Late Brunswick. Eic. For similar names see *Fottler's Brunswick.*

Seedsmen's synonyms. *Large Late Drumhead*, Bdg. *Fottler's Brunswick*, Bdg.

Large Late Drumhead. Alr Anb Ar Bai Btl Bkt Blg Bou Bdg Bur Brr CE Cle Col CF Cox Crs Cur CA Drr *Eic* Elt Emr RE Fst Ger Gdn GH Gfg G&T Grw TG Hns Hde Hrv Hst Jac RHJ J&S Jns Kei Ken *Kg* Kos Lam Lea Lnr Mgd Man PM Mns May JCM JMM McM Mel *Mic* Mhl *Mls* Mzy Nef NI NK *Pac* JMP Prn Pnt Pot Pri Rce Roc RP SC Shw Shm Sim Spf Stk SB Stw S&W Tat Tem TB Thm Thr Thb Til Trm T&B Vau Vk Vin W&D Wer Wd WS Wyg.

Similar names. Bolgiano's Large Late Drumhead, Bloomsdale Large Late Drumhead, Market Gardener's Large Late Drumhead, Market Gardener's Late Drumhead, Philipp's Toledo Large Late Drumhead, Toledo Large Late Drumhead, Improved Large Late Drumhead, Buist's Large Late Drumhead, Buist's Improved Large Late Drumhead, McMillan's Improved Large Late Drumhead, Shumway's Improved Large Late Drumhead, Large Drumhead, Late Drumhead, Champion Late Drumhead, Improved Late Drumhead, Mammoth Late Drumhead. See also *Drumhead, Premium Drumhead, Early Drumhead.*

Seedsmen's synonyms. *Large Late Brunswick*, Bdg. *Fottler's Brunswick*, Bdg.

Large Late Flat Dutch. Anb Brt Bkt Bou Bur Cam Cle CA D&C *Eic* Evr Fmr Gdn GH Gfg Haw Iml Jac Kei Kg Liv Mns *May Mic* Mzy Qkr Ree Rim Roc S&B Shw Stk S&W TB Thr Til Wd.

SIMILAR NAMES. Acme Large Late Flat Dutch, Acme Flat Dutch, Burpee's Large Late Flat Dutch, Everitt's Large Late Flat Dutch, Frotscher's Large Late Flat Dutch, Bloomsdale Large Late Flat Dutch, Holmes's Perfection Large Late Flat Dutch, Shumway's Excelsior Large Late Flat Dutch, Long Island Large Late Flat Dutch, Market Gardener's Large Late Flat Dutch, Toledo Market Gardener's Large Late Flat Dutch, Improved Large Late Flat Dutch, Buist's Large Late Flat Dutch, Buist's Improved Large Late Flat Dutch, Large Flat Dutch, Burpee's Large Flat Dutch, Burr's Large Flat Dutch, Extra Large Flat Dutch, Late Flat Dutch, Dreer's Late Flat Dutch, Frotscher's Late Flat Dutch, Henderson's Late Flat Dutch, Houseman's Late Flat Dutch, Jones's Late Flat Dutch, Northrup, King & Co.'s Late Flat Dutch, Schisler-Corneli Late Flat Dutch, Bristol Improved Late Flat Dutch, Bristol Late Flat Dutch, Brunning's Excelsior Late Flat Dutch, Crescent City Late Flat Dutch, Centennial Late Flat Dutch, Hastings' Centennial Late Flat Dutch, McMillan's Improved Late Flat Dutch, Mammoth Late Flat Dutch, Vincent's Improved Late Flat Dutch, Mill's Giant Late Flat Dutch, Giant Late Flat Dutch, Superior Late Flat Dutch, Matchless Late Flat Dutch, Noll's Matchless Late Flat Dutch, Johnson & Stokes' Matchless Late Flat Dutch, Eichling's Large Late Flat Dutch, Simmers' Matchless Flat Dutch, Matchless Flat Dutch, Prize Head Late Flat Dutch, Faust's Prize Head Late Flat Dutch, Wood's Prize Head Late Flat Dutch, Prize Head Late Flat Dutch, Buist's Prize Medal Flat Dutch, Prize Medal Flat Dutch, Maule's Prize Flat Dutch, Prize Flat Dutch, Johnson's Early Large Prize Head. See also *Flat Dutch, Early Flat Dutch, Premium Flat Dutch, Lilly, Bogardus & Co.'s Late Flat Dutch.*

SEEDSMEN'S SYNONYMS. *Premium Flat Dutch*, Bdg. *Excelsior*. Bdg.

Large Late French Quintal. Sim. For similar names see *Schweinfurt Quintal.*

Large Late Mountain. Lan.

SIMILAR NAMES. Landreth's Large Late Mountain.

Large Late Premium Drumhead. Brd Bui Hrn.

SIMILAR NAMES. See *Premium Drumhead.*

Large Late Premium Flat Dutch. Ar Bui G&T TG Hrn H&P J&M Lea Min HP Spf Thm.

SIMILAR NAMES. *Premium Flat Dutch.*

Large Lupton. Gra. For similar names see *Lupton.*

Large Luxemburg. MV *Sox.* For similar names see *Luxemburg.*

Large Ox Heart. Eic Ewg Gra. For similar names see *Early French Ox Heart.*

Large Perfection Drumhead Savoy. Shm.

SIMILAR NAMES. See *Perfection Drumhead Savoy.*

Large Premium Drumhead. Min. For similar names see *Premium Drumhead.*

Large Red Drumhead. Bdg Bru Bur Bng Col Fax Fle GH Gra *RHJ* Pks Raw Rt W&D.

SIMILAR NAMES. See *Red Drumhead.*

SEEDSMEN'S SYNONYMS. *Improved Red Dutch*, Bui.

Large Red Pickling. Cur. For similar names see *Pickling.*

Large St. Denis. RE SB. For similar names see *St. Denis.*

Large Short Stem Brunswick. Ewg Gra Pac.

SIMILAR NAMES. See *Fottler's Brunswick.*

Large Vertus Savoy. RHJ. For similar names see *Vertus.*

Large Wakefield. Bak Bow Buc Bur Brr *CE* Col Dlw Drr Elt Gry G&T Hrn Hrs Hlm H&P Iml J&S *Jns* Ken Lam *Lan* Liv Mgd *Man* PM Mns Nol HP Pnt Ptt Poo Por Roc S&R Spf S&H S&W Vau Vk Wea Wd Wdr WS.

Similar names. See *Early Jersey Wakefield.*

Seedsmen's synonyms. *Charleston,* Spf Blg Buc Bur Drr Fer, etc. *Charleston Wakefield,* Crs GH Liv Nol Wd WS Wea.

Large York. Crg Drr *Eic* Ger *Hlm* Mel Mzy Stk Vin Wd WS.

Similar names. See *Early York.*

Late American Drumhead. Frd *AGT.*

Similar names. See *American Drumhead.*

Late American Savoy. Neb. For similar names see *American Savoy.*

Late Drumhead. Bri Ewg Fmr H&C *May* Poo.

Similar names. See *Large Late Drumhead.*

Seedsmen's synonyms. *German Export,* Fmr.

Late Drumhead Savoy. Bdg. For similar names see *Drumhead Savoy.*

Late Flat Dutch. Brd Bri Bng Buc *LB* C&B Cur Dlw Drr Drw *RE* Ewg Fer *Ham* Hen Hse *RHJ* Jns *Kg* Lon McM Mel Mic Mhl NK OV Pug *Rtk* Roc SC Sim *Spf* SB AGT Tpk Vin.

Similar names. See *Large Late Flat Dutch.*

Seedsmen's synonyms. *Premium Flat Dutch,* SB OV.

Late French Market. DD.

Similar names. Steckler's French Market.

Late French St. Denis. Sim. For similar names see *St. Denis.*

Late Green Curled Savoy. Dlw. For similar names see *Green Curled Savoy.*

Late Mammoth Rock Red. Ar. For similar names see *Mammoth Rock Red.*

Late Marblehead Mammoth. Sim. For similar names see *Marblehead Mammoth.*

Late Perfection Drumhead Savoy. LB.

Similar names. See *Perfection Drumhead Savoy.*

Late Premium Drumhead. Alx Bow Fer Loh Neb Tex Wlt.

Similar names. See *Premium Drumhead.*

Late Premium Flat Dutch. Alx Bak Btl Bow *CE EBC* Fer Fle GH Gra Hns Hde Hst Hop RHJ Ken K&F Lam LB Loh PM May MV Neb NI Pg Pnt Rce Roc RP SC S&O Shm Sox Tlh *Tpk* Vl Vk Web Wlt.

Similar names. See *Premium Flat Dutch.*

Late Red Dutch. Anb CF NI Wer. For similar names see *Red Dutch.*

Late Stoneball. Mhl.

Late Stonehead. *Bur.*

Late White Dutch. Evr.

Similar names. Everett's Late White Dutch.

Late York. Eic. For similar names see *Early York.*

Lauderback's All Year Round. Entered as *All the Year Round.*

Lightning. Sal. For similar names see *Express.*

Lightning Express. GN. For similar names see *Express.*

Lilly, Bogardus & Co.'s Harvest Home. Entered as *Harvest Home.*

Lilly, Bogardus & Co.'s Late Flat Dutch. Entered as *Late Flat Dutch.*

Limited Mail. Hlm.

Livingston's Blue Boom, Livingston's Ideal Winter, Livingston's Premium Flat Dutch. Entered as *Blue Boom, Ideal Winter,* and *Premium Flat Dutch.*

Lohrman Seed Co.'s Earliest Round Head. Entered as *Earliest Round Head.*

Long Island. Chl TB.

Similar names. Long Island Large Late Flat Dutch, Long Island Medium Flat Dutch, Brill's Second Early Long Island, Long Island Market Savoy, Long Island Colossal Savoy, Second Early Long Island.

Long Island Colossal Savoy. J&S *Vau.* For similar names see *Long Island.*

Long Island Large Late Flat Dutch. Lan.

Similar names. See *Large Late Flat Dutch, Long Island.*

Long Island Market Savoy. Shw.

Long Island Medium Flat Dutch. Lan.

Similar names. See *Flat Dutch, Long Island.*

Long Island Second Early. Bng. For similar names see *Long Island.*

Long-Keeping. Cur Dlw Kos May.

Similar names. Improved Long-Keeping, Currie's Long-Keeping, May's Long-Keeping.

Louisville Drumhead. Bui *Bur CE EBC* Cle *CF* Crg Crs Drr Fer Frd GH G&T Hrn *H&C* Inl Kg Lnr *May* McM Qkr Ree SC Tat Til Vl Vk *Wat* WS Wyg.

Similar names. Louisville Early Drumhead, Louisville Short Stem Drumhead, McCullough's Early Louisville, Early Louisville.

Louisville Early Drumhead. Anb *Cam* CA Evr H&P J&S Lan Lea Liv JCM Nol *Shw.*

Similar names. See *Louisville Drumhead.*

Louisville Short Stem Drumhead. Trm.

Similar names. See *Louisville Drumhead.*

Low Dutch. Lan.

Lupton. Alr Brd Bkt Blg Bgs Bri Bru Buc Bur C&J Col Crs CA D&H Drr Evr Fmr Fqr Fle Frd GH Gng G&T TG Hrs Hlm Hse H&P MWJ J&S Kra Liv JL Mns Man McK *Mls* Neb Pg HP Ptt Pri Raw Ren Rce Roc Sal Shm Sie Sim *Spf* SB Tem Til Vau Vk *Wer.*

Similar names. Large Lupton.

Seedsmen's synonyms. *Improved Vandergaw*, D&H DD.

Leonard's Faultless, Leonard's Improved Bridgeport Drumhead, Leonard's Luxemburg. Entered as *Faultless*, *Bridgeport Drumhead*, and *Luxemburg.*

Luxemburg. Brd Cle Col *CF* Fer Frd Ggy Hse Jns *Kg* Kos Kra Lnr Liv Neb Rce Roc Rs Vau Wer.

Similar names. Leonard's Luxemburg, Large Luxemburg, Hard Head Luxemburg.

Seedsmen's synonyms. *Hard Heading*, Col Cle Fmr Frd Kra Rs, etc. *Gregory's Hard Heading*, Ggy.

McCullough's Early Louisville, McCullough's Premium Flat Dutch. Entered as *Early Louisville* and *Premium Flat Dutch.*

McKenzie's Northern Favorite. Entered as *Northern Favorite.*

McMillan's All Head, McMillan's Improved Early Flat Dutch, McMillan's Improved Flat Dutch, McMillan's Improved Large Late Drumhead, McMillan's Improved Late Flat Dutch, McMillan's Improved Jersey Wakefield, McMillan's Perfection Drumhead Savoy, McMillan's Perfection Early Drumhead. Entered as *All Head, Early Flat Dutch, Flat Dutch, Large Late Drumhead, Late Flat Dutch, Jersey Wakefield, Perfection Drumhead Savoy*, and *Perfection Early Drumhead.*

Magdeburg. Dlw.

Mammoth Bridgeport Drumhead. Sal.

Similar names. See *Bridgeport Drumhead.*

Mammoth Dark Red. *Hde.*

Mammoth Globe Savoy. Sal. For similar names see *Green Globe Savoy.*

Mammoth Late Bridgeport Drumhead. Buc Roc.

Similar names. See *Bridgeport Drumhead.*

Mammoth Late Drumhead. Eic. For similar names see *Large Late Drumhead.*

Mammoth Late Flat Dutch. Roc. For similar names see *Large Late Flat Dutch.*

Mammoth Red. Gls. For similar names see *Mammoth Rock Red.*

Mammoth Red Drumhead. Spf. For similar names see *Red Drumhead.*

Mammoth Red Dutch. Blg. For similar names see *Red Dutch.*

Mammoth Rock Red. Alr Bak Brd Btl Bkt *Bgg* Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr Brw Cam CE Cle C&B Col CF Crs Cur *CA* Dlw Del Drr Dun Elt RE Fmr Fer Fle Frd Gdn GH Gra Gng GN Ggy Gry Grw TG Hns Hrs Haw Hen H&C

Hlm Hop Hse H&P Iow Iml Jer J&S Jns K&W Ken Kg Kos Kra Lam Lnr LB Liv JL Loh Mgd Man Mns Mau May JMM McK *Mic* MV Neb Nef Nol Old Pac Pg Pks HP Prn Pne Ptt Poo Por Pri Pug Qkr Raw Ren Roc Rs S&R SC S&O Shm Sic Sim Sox SB S&H S&W Tem Thb *Tth* Til T&B Vl Vau Vk Wea W&D *Wer* Wdr WS Yng.

SIMILAR NAMES. Rock Red, Late Mammoth Rock Red, Mammoth Red.

Mammoth Vertus. *RHJ.* For similar names see *Vertus.*

Mammoth Wakefield. Bel. For similar names see *Early Jersey Wakefield.*

Mann's Columbia. Entered as *Columbia.*

Marblehead Drumhead. Yng. For similar names see *Marblehead Mammoth.*

Marblehead Mammoth. Alr Anb Ar Brk Bdg Bgs Brn Bur Cle Cox Crg Crs Del Eas Ebe Emr Ewg Fqr Fst GH Gra Ggy Gry TG Hns Hrm Hrv *H&C* Iow Kei *Kg* Lea Lnr *Liv* JL Mau May McK Mic NI Pac Pg Pot Raw Ree Ren Roc Rs RP Sal S&F Shw Shm Sox SB Tem AGT T&B Vl *Wat* Wll.

SIMILAR NAMES. Late Marblehead Mammoth, Marblehead Mammoth Drumhead, Marblehead Drumhead.

Marblehead Mammoth Drumhead. Btl Bow Bru Bui *CE* Cur CA Fer Ger Hrn Hlm K&W Kg Lam MV JMP Ptt Ree S&O *Sox* S&H Thm Til Tpk Vau Vk Web Yng.

SIMILAR NAMES. See *Marblehead Mammoth.*

Market Gardener's. HP.

Market Gardener's All Year Round. Bri.

SIMILAR NAMES. See *All the Year Round.*

Market Gardener's Flat Dutch. Thr. For similar names see *Flat Dutch.*

Market Gardener's Late Drumhead. *Vl.*

SIMILAR NAMES. See *Large Late Drumhead.*

Market Gardener's Large Late Drumhead. Lan Stw.

SIMILAR NAMES. See *Large Late Drumhead.*

Market Gardener's Large Late Flat Dutch. H&P Lan Lea Stw.

SIMILAR NAMES. See *Large Late Flat Dutch.*

Market Gardener's Late Flat Dutch. *Kg.*

SIMILAR NAMES. See *Market Gardener's.*

Market Gardener's No. 2. J&S M&S Nol Pir.

SIMILAR NAMES. See *Market Gardener's.*

Market Gardener's Private Stock Drumhead Savoy. Shw.

SIMILAR NAMES. See *Drumhead Savoy.*

Market Gardener's Private Stock Flat Dutch. *Ebe* Thr.

SIMILAR NAMES. See *Flat Dutch.*

Market Queen. May OV *Tpk.*

SIMILAR NAMES. Extra Early Queen, Buckbee's Extra Early Large Queen, Tait's May Queen, Extra Early Large Queen, May Queen.

Marvin's Improved Savoy. Entered as *Marvin's Savoy.*

Marvin's Large Savoy. Liv. For similar names see *Marvin's Savoy.*

Marvin's Savoy. Brw Chl Frd Shw Vau.

SIMILAR NAMES. Marvin's Large Savoy, Marvin's Improved Savoy.

Matchless. Chl.

Matchless Flat Dutch. Sim. For similar names see *Large Late Flat Dutch.*

Matchless Late Flat Dutch. J&S M&S Nol *Shw.*

SIMILAR NAMES. See *Large Late Flat Dutch.*

Maule's Early Express, Maule's Early Flat Dutch, Maule's First Early, Maule's Prize Flat Dutch, Maule's Prize Short Stem Drumhead, Maule's Prize Wakefield, Maule's Sure Head, Maule's Winningstadt. Entered as *Early Express*, *Early Flat Dutch*, *First Early*, *Prize Flat Dutch*, *Prize Short Stem Drumhead*, etc.

Maule's Midsummer. Mau.

Similar names. Midsummer, Vandergaw Midsummer, Shumway's Midsummer Market.

Maule's Prize Midsummer. Fqr Mau Raw.

May Queen. Tat. For similar names see *Market Queen.*

May's Early Surprise, May's Hundredweight, May's Long-Keeping. Entered as *Early Surprise, Hundredweight,* and *Long-Keeping.*

Midsummer. Bui Bur Shm.

Similar names. Maule's Midsummer, Shumway's Midsummer Market.

Seedsmen's synonyms. *Vandergaw,* Bui Bur Buc Roe.

Mills' Early All Head, Mills' First in the Market, Mills' Giant Late Flat Dutch, Mills' Short Stem Drumhead, Mills' Sure Head. Entered as *Early All Head, First in the Market, Giant Late Flat Dutch, Short Stem Drumhead,* and *Sure Head.*

Minnesota Earliest. Fmr May OV *Tpk.* For similar names see *Earliest.*

Model Summer. M&S.

Moore & Simon's Early Gem, Moore & Simon's Extra Early Cocoanut. Entered as *Early Gem* and *Extra Early Cocoanut.*

Nebraska Seed Co.'s Late Premium Flat Dutch. Entered as *Late Premium Flat Dutch.*

Netted Savoy. Hen McK Neb HP Pir Poo Por Ren S&R AGT.

Similar names. See *Savoy.*

Netted Savoy Brunswick. M&S. For similar names see *Fottler's Brunswick.*

Newark Early Flat Dutch. *Cam CE* Chl TG Nol Pri Ree Shm Tem TB Vk W&D Y&H.

Similar names. See *Early Flat Dutch.*

Newark Flat Dutch. Cam Tat *Y&H.* For similar names see *Early Flat Dutch.*

New York Early Summer. Lan Stw. For similar names see *Early Summer.*

Niggerhead. Elt Neb Thr.

Noll's Extra Early Ideal, Noll's Matchless Late Flat Dutch, Noll's Perfection Hard-Heading Savoy. Entered as *Extra Early Ideal, Matchless Late Flat Dutch,* and *Perfection Hard-Heading Savoy.*

Nonesuch. Bru Del RE Evr MWJ TB.

Similar names. Brill's Nonesuch.

Nonpareil. *D&H.*

North Carolina. Hst Wd.

Seedsmen's synonyms. *Buncombe,* Hst Wlt Wd.

Northern Favorite. *McK.*

Northern Giant Flat Dutch. GN. For similar names see *Flat Dutch.*

Northrup, King & Co.'s Late Flat Dutch. Entered as *Late Flat Dutch.*

Number Ninety-One. *GN.*

Number Seventy-Six. Bur.

Ohio Medium Flat Dutch. *EBC.* For similar names see *Flat Dutch.*

Olds' Bridgeport Drumhead, Olds' Early Jersey Wakefield. Entered as *Bridgeport Drumhead* and *Early Jersey Wakefield.*

Oregon. GN.

Oxheart. Kei May. For similar names see *Early French Oxheart.*

Paris Market. RHJ *McK.*

Similar names. Early Paris Market, Early Paris Savoy, Flat Parisian.

Pearce's Fifty Pound. D&H.

Pearce's Second Crop. D&H.

Peerless. Cle.

Similar names. Early Peerless, Shumway's Early Peerless.

Perfection Drumhead Savoy. Alx Anb Bkt Bri Bng Bui Bur Brr Brw C&J *CE* Chl CF Drr Drw Eic Elt Fmr Fqr Fst GH Gra Gng G&T TG Hst Hrs Hlm H&P Iow J&S Ken Lea McM M&S *Pat* Ptt Pri Rce Roc Rt SC Sim Tat Wea W&D Wd Wdr WS Yng.

Similar names. Large Perfection Drumhead Savoy, Late Perfection Drumhead Savoy, Curled Perfection Drumhead Savoy, McMillan's Perfection Drumhead Savoy, Simmers' Perfection Drumhead Savoy.

Perfection Early Drumhead. McM. For similar names see *Early Drumhead.*

Perfection Hard-Heading Savoy. Nol. For similar names see *Hard-Heading.*

Perfection Large Late Flat Dutch. Hlm.

Similar names. See *Large Late Flat Dutch.*

Perfection Late Beauty. *M&S.*

Perry's Premium Brunswick, Perry's Premium Flat Dutch. Entered as *Premium Brunswick* and *Premium Flat Dutch.*

Pe Tsai. Alx Fqr Tat Thr Vau Vin.

Seedsmen's synonyms. *Chinese Cabbage,* Alx Fqr Tat Thr Vau Vin.

Philipps' Improved Succession, Philipps' Large Late Premium Flat Dutch, Philipps' Toledo Large Late Drumhead. Entered as *Succession, Large Late Premium Flat Dutch,* and *Toledo Large Late Drumhead.*

Plant Seed Co.'s Late Premium Flat Dutch, Plant Seed Co.'s St. Louis Late Market. Entered as *Late Premium Flat Dutch* and *St. Louis Late Market.*

Pickling. Brk Bdg Roc.

Similar names. Red Pickling, Large Red Pickling.

Seedsmen's synonyms. *Red Dutch,* Bdg Buc Brk Neb Roc.

Pomeranian. Bdg Ren.

Similar names. Pomeranian Pointed-Head.

Seedsmen's synonyms. *Filderkraut,* Bdg Ren.

Pomeranian Pointed-Head. Mzy Thr. For similar names see *Pomeranian.*

Seedsmen's synonyms. *Filderkraut,* Mzy Thr.

Poole's Cannon Ball. Poo. For similar names see *Cannon Ball.*

Premier. Sim.

Similar names. Simmers' Premier.

Premier Brand. *Hst.*

Premium Brunswick. Ebe. For similar names see *Fottler's Brunswick.*

Premium Drumhead. Bak Brk Fer Pks Por Pri S&R.

Similar names. Price & Reed's Premium Drumhead, Large Premium Drumhead, Late Premium Drumhead, Large Late Premium Drumhead, Ferry's Late Premium Drumhead, Improved Late Premium Drumhead, Harnden's Large Late Premium Drumhead. See also *Drumhead, Early Drumhead,* and *Large Late Drumhead.*

Premium Drumhead Savoy. *Man.*

Premium Flat Dutch. Alr Bai Blg Bgg Brk Bgs Brn Bru Bur Brw C&J CE C&B Col CF Cok Crs Cur Dun Eas Ebe Emr *RE* Fmr Fqr Fax Fld Frd Ger Gls Ggy Gry Grw Hrm Hrs Hrv Hen Hlm Hnt Iow J&S K&W Koe Kos Kra Lmr Liv JL Mnd Mgd Man PM Mns Mas JCM JMM Nef Nol Old *Pac* Pks JMP Pir Prn Pne Ptt Por Pot Pri Qkr Raw Ren Rs Sal S&R S&F S&B Sie SB S&H Tat Tem Tex Thb AGT *Tlh* Til Trm T&B Vau Vin Wat Wea W&D Wer Wll Wdr Wyg Yng.

Similar names. Alneer's Premium Flat Dutch, Currie's Premium Flat Dutch, Kramer's Premium Flat Dutch, Livingston's Premium Flat Dutch, McCullough's Premium Flat Dutch, Perry's Premium Flat Dutch, Vaughan's Premium Flat Dutch, Will's Premium Flat Dutch, Early Premium Flat Dutch, Late Premium Flat Dutch, Improved Late Premium Flat Dutch, Ferry's Premium Flat Dutch, Nebraska Seed Co.'s Late Premium Flat Dutch, Plant Seed Co.'s Late Premium

Flat Dutch, Rice's Late Premium Flat Dutch, Large Late Premium Flat Dutch, Harnden's Large Late Premium Flat Dutch, Hawkins' Large Late Premium Flat Dutch, Philipps' Large Late Premium Flat Dutch, Large American Premium Flat Dutch. See also *Flat Dutch*, *Early Flat Dutch*, *Large Late Flat Dutch*.

Seedsmen's synonyms. *Large Late Flat Dutch*, Bdg. *Late Flat Dutch*, SB. *Excelsior*, Bdg. *Superior Late Flat Dutch*, OV.

Price & Knickerbocker's Large Bristol. Entered as *Large Bristol*.

Price & Reed's Premium Drumhead. Entered as *Premium Drumhead*.

Pride of Erfurt. *Nol.*

Pride of the South. *Pnt* Stk.

Prize Flat Dutch. Mau. For similar names see *Large Late Flat Dutch*.

Prize Hard Head. Ren. For similar names see *Hard-Heading*.

Prize Head Late Flat Dutch. Fst Wd WS.

Similar names. See *Large Late Flat Dutch*.

Prize Medal Drumhead. Bui. For similar names see *Drumhead*.

Prize Medal Flat Dutch. Bui. For similar names see *Large Late Flat Dutch*.

Prize Short Stem Drumhead. Mau. For similar names see *Short Stem Drumhead*.

Prize Wakefield. Mau. For similar names see *Early Jersey Wakefield*.

Queen Victoria. Blg. For similar names see *Victoria Savoy*.

Quincy Market. Fax.

Quintal Drumhead. RE. For similar names see *Schweinfurt Quintal*.

Race Horse. Buc Roc. For similar names see *Buckbee's Race Horse*.

Rawson's Early Summer, Rawson's Stone Mason, Rawson's Volunteer. Entered as *Early Summer*, *Stone Mason*, and *Volunteer*.

Red Drumhead. *RE* Ger Hrv J&M Jns Kei Kra Lnr Liv Pot Ree S&O SB AGT Van Wll.

Similar names. Improved Red Drumhead, Buxton Red Drumhead, Mammoth Red Drumhead, Large Red Drumhead, Erfurt Large Red Drumhead, Dark Red Drumhead, Large Dark Red Drumhead, Danish Large Dark Red Drumhead, Dutch Large Late Deep Red Drumhead, Dutch Red Drumhead, Blood Red Drumhead, Extra Early Blood Red Drumhead.

Red Dutch. Alx Bai Brd Brt Ber Bow Brk Bdg Bri Bru Bui *Bur* Brr CE Chl C&B Crs Drr Eas Eic Elt Ewg GH Gra Hrm Hen Hlm MWJ Kei Ken Koe Lan Mnd Mns Mau May JCM McM Min MV Neb Pg Pks JMP Pri Ree Roe Rs RP Sal S&R Shw S&O Sox Spf Stk Stw Tat TB Thm Til Tpk Vin Web Wd Yng.

Seedsmen's synonyms. *Large Red Drumhead*, Bur. *Red Dutch Drumhead*, Pg. *Pickling*, Bdg Brk Buc Neb Roc.

Red Dutch Erfurt. Ebe GH J&S. For similar names see *Red Erfurt*.

Red Dutch Pickling. Cle Gry Grw TG Pir Shm Vl.

Similar names. See *Red Dutch*.

Red Erfurt. *CE* Ree Sie.

Similar names. Early Red Erfurt, Early Blood Red Erfurt, Extra Early Blood Red Erfurt, Early Blood Red Dwarf Erfurt, Dark Red Erfurt, Early Dark Red Erfurt, Extra Early Dark Red Erfurt, Early Dwarf Dark Red Erfurt, Red Dutch Erfurt, Early Red Dutch Erfurt, Extra Early Red Dutch Erfurt, Improved Red Dutch Erfurt, Round Sugar Erfurt, Giant Red Erfurt, Giant Blood Red Erfurt.

Red Hollander. Cur. For similar names see *Hollander*.

Red Perfection. Brk.

Red Pickling. Cur Neb. For similar names see *Pickling*.

Red Polish Short-Stemmed. Mau.

Red Stone Head. *CE* Dlw Mzy Thr.

Similar names. Improved Red Stone Head, Thorburn Improved Red Stone Head, Rock Head.

Reedland Early Drumhead. Lan Mic Stw

Similar names. See *Early Drumhead.*

Rennie's Prize Hard Head. Entered as *Prize Hard Head.*

Rice's Early Jersey Wakefield, Rice's Early Winningstadt, Rice's Late Premium Flat Dutch, Rice's Premium Flat Dutch, Rice's Sure Head. Entered as *Early Jersey Wakefield, Early Winningstadt, Late Premium Flat Dutch, Premium Flat Dutch,* and *Sure Head.*

Rockford Market. Buc Roc.

Similar names. Buckbee's Rockford Market.

Rock Head. Frd J&S M&S. For similar names see *Red Stone Head.*

Rock Red. *CE* Hrm NK Ree. For similar names see *Mammoth Rock Red.*

Rosedale Savoy. *D&H.*

Round Sugar Erfurt. Fmr Ggy. For similar names see *Red Erfurt.*

Russian Round Giant. M&S. For similar names see *Autumn Giant.*

Russian Round Head. *Nol.*

Safe Crop. Alr Bur Hlm Man.

Similar names. Alneer's Safe Crop, Burpee's Safe Crop.

St. Denis. Bru Ewg Gra Kei Lan Ren Stk.

Similar names. Large St. Denis, Late French St. Denis.

Seedsmen's synonyms. *Chou Bonneuil,* Stk.

St. John's Day Early Drumhead. Hen Kg.

Similar names. See *Early Drumhead.*

St. Louis Late Market. K&F *Lan Neb* Pnt SC Spf *Stw.*

Similar names. See *St. Louis Market.*

St. Louis Market. Buc *Ebr* Trm.

Similar names. St. Louis Late Market, Plant Seed Co.'s St. Louis Late Market.

St. Malo. Vin.

Salzer's Earliest. Sal. For similar names see *Earliest.*

Salzer's Giant Flat Dutch, Salzer's Ideal, Salzer's Improved Market, Salzer's Jersey Wakefield, Salzer's Kraut King, Salzer's Lightning. Entered as *Giant Flat Dutch, Ideal, Salzer's Market, Jersey Wakefield, Kraut King,* and *Lightning.*

Salzer's Market. Sal. For similar names see *Extra Early Market.*

Savoy. Hnt Pg.

Similar names. Improved Savoy, Bolgiano's Savoy, Bolgiano's Improved Savoy, Evans' Improved Savoy, Evans' Savoy, Steele-Briggs' Chester Savoy, Chester Savoy, Dreer's Crystal Summer Savoy, Crystal Summer Savoy, Early Favorite Savoy, Netted Savoy, Early Vienna Savoy.

Schisler-Corneli Late Flat Dutch. Entered as *Late Flat Dutch.*

Schweinfurt Quintal. RHJ.

Similar names. Early Schweinfurt Quintal, Early Schweinfurt, Large Early Schweinfurt, Quintal Drumhead, Large Late French Quintal, Auvergne Quintal.

Schwill's Matchless Late Flat Dutch. Entered as *Matchless Late Flat Dutch.*

Sensation. DD.

Short Stem Brunswick. Bow Bui Fer *Kei Mns* Pks HP.

Similar names. See *Fottler's Brunswick.*

Short Stem Drumhead. Alr Ber Bui Bur CE CCo Cok Evr Fst Frd GH TG Hlm Iow J&S Kos JL Man May Mls M&S Nol OV Pg Ree Rim Sal Sox *Thm Tpk.*

Similar names. Burpee's Short Stem Drumhead, Everitt's Short Stem Drumhead, Iowa Seed Co.'s Short Stem Drumhead, Koss' Short Stem Drumhead, Mills' Short Stem Drumhead, Maule's Prize Short Stem Drumhead, Prize Short Stem Drumhead.

Seedsmen's synonyms. *Fottler's Improved Brunswick,* Frd.

Shumway's Early Peerless, Shumway's Excelsior Large Late Flat Dutch, Shumway's Faultless, Shumway's Improved Large Late Drumhead, Shumway's Improved Sure Head, Shumway's Jersey Wakefield. Entered as *Early Peerless, Excelsior Large Late Flat Dutch, Faultless, Large Late Drumhead, Sure Head,* and *Jersey Wakefield.*

Shumway's Midsummer Market. Shm. For similar names see *Midsummer.*

Silverleaf Drumhead. Kei. For similar names see *Drumhead.*

Simmers' Early German Brunswick, Simmers' Matchless Flat Dutch, Simmers' Perfection Drumhead Savoy, Simmers' Premier. Entered as *Early German Brunswick, Matchless Flat Dutch, Perfection Drumhead Savoy,* and *Premier.*

Simon's Netted Savoy Brunswick. Entered as *Netted Savoy Brunswick.*

Small Bellville. Bur. For similar names see *Bellville.*

Small Early Savoy. *Liv* Vau.

Solid Emperor. Frd *Ggy* Hrs Ree *Tem* Wdr.

Similar names. Emperor.

Seedsmen's synonyms. *Amager,* Fqr. *Cannon Ball,* Wdr. *Danish Ball Head,* Brr Fqr Fer Fld Liv Tem, etc. *Dutch Cabbage,* Fer. *Dutch Winter,* Liv. *German Export,* Fer Liv Tem Wdr. *Hollander,* Fqr Fer Liv Fld Brr.

Solid South. Cle *Crg* Crs Eic Hst Kg May OV Roc Shw Shm Stk Wd WS.

Similar names. Eichling's Solid South.

Seedsmen's synonyms. *All Head Early,* Crs. *Burpee's All Head Early,* Ham.

Southern Green Glazed. Bui Gdn. For similar names see *Green Glazed.*

Springfield Seed Co.'s Late Flat Dutch. Entered as *Late Flat Dutch.*

Similar names. See *Large Late Flat Dutch.*

Steckler's French Market. Entered as *French Market.*

Steele-Briggs' Chester King, Steele-Briggs' Chester Savoy. Entered as *Chester King* and *Chester Savoy.*

Stein's Drumhead. May. For similar names see *Drumhead.*

Stein's Early Flat Dutch. Entered as *Early Flat Dutch.*

Stone Mason. Anb Bow Brk Bgs Bui Brb Brr CE CF Cox Cur Dun Ebe Emr *Fmr* Fqr Fax Fer Ger Gry TG Hrm Hrv *H&C* RHJ *Jns* K&W Ken Kg Lnr Mau May Mls MV HP JMP Pir Pne Ptt Pot Pug Raw Ree Rs S&O Shm Sie Sox Thb Til *Tpk* Vua Wea Wdr.

Similar names. Rawson's Stone Mason, Swiss Stone Mason, Warren Stone Mason, Warren Improved Stone Mason, Stone Mason Marblehead, Stone Mason Marblehead Mammoth.

Seedsmen's Synonyms. *Warren,* Fer HP Mls. *Drumhead,* Pug.

Stone Mason Marblehead. *Bow* Brn Bur Crs Eas Lam PM Pks Por Roc S&R.

Similar names. See *Stone Mason.*

Stone Mason Marblehead Mammoth. Vin. For similar names see *Stone Mason.*

Succession. Alx Anb Bai Bak Brt Bkt Bel Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Bui Bur Brr Brw C&J *Cam CE* Cle C&B Col CF Cox Crg Crs Cur Dlw D&H Del DD Drr Drw Drm Dun Ebe Eic Emr RE Evr Ewg Fmr Fqr Fst Fer Frd Ger Gls Gdn GH Gra Gng Ggy Gfg G&T TG Hrm Hrn Hrv Hst Hen H&C Hlm Hop Hse Iml Jac MWJ J&S Jns Kei K&W Ken Kg Kos Kra Lam Lan Lea Lnr Liv Loh Mnd Man PM Mns Mau May McK McM Mic *Mhl Mls* MV Mzy Neb Nol NI NK OV Pac Pg Pks HP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Raw Ren Ree Roc Rs Sal S&R S&F Shw S&O Shm Sie Sim Sox Spf Stk S&W Tat *Tem* Tex TB Thm Thr Thb AGT Tlh Til *Tpk* T&B Vl Vau Vk Vin Wea W&D *Wlt* Wd Wdr WS Y&H.

Similar names. Griffing's Succession, Henderson's Succession, Early Succession, Henderson's Early Succession, Improved Succession, Philipps' Improved Succession.

Seedsmen's synonyms. *All Seasons,* Ebr Lam Por S&R AGT Vin.

Sugar Loaf. Fle Kei.

Similar names. Early Sugar Loaf.

Summer Ball Head. *Mau.* For similar names see *Danish Ball Head.*

Summer Danish Ball Head. Ggy *Mau.* For similar names see *Danish Ball Head.*

Sunproof. *Ar.*

Sure Crop. Hst. For similar names see *Hastings' Sure Crop, Early Sure Crop.*

Sure Head. Alx Alr Anb Bai Bak Btl Brd Bkt Bel Ber Blg Bow Bgg Bgs Bri Brn Bru Buc Bui Bur Brb Brw C&J Cam CE Chl Cle Col Cox *Crg* Crs Cur CA Dlw *D&H* Del D&C Drw Dun Ebe *Ebr* Eic Elt RE Evr Fmr Fst Fax Fer Fld Frd Ger Gdn GH Gra GN G&T Grw TG Hns Hde Hrm Hrn Hrs Hrv Hst Haw H&C Hlm Hop Hse Hnt H&P Iow Jac J&S Jns Ken K&F Kg Kos Kra Lam *Lan* Lea Lnr Liv JL Lon Mgd PM Mns Mau May JCM McK McM *Md* Mic Mls MV M&S Neb Nol NI NK OV Old *Pac* Pg HP JMP Pir Pne Pnt Ptt Por Pri Qkr *Rtk* Raw Ree Ren Rce Rim Roc Rt RP Sal S&R Shw S&O Shm Sie Sim Sox Spf SB S&H Tat Tem Tex TB Thm Thr AGT Tlh Til *Tpk* Trm T&B Vl Vau Vin *Wat* Wea Web Wer Wll Wd Wdr WS Wyg Yng.

Similar names. Bell's Sure Head, Burpee's Sure Head, Hawkins' Sure Head, Maule's Sure Head, Mills' Sure Head, Rice's Sure Head, Shumway's Improved Sure Head, Improved Sure Head, Willett's All Seasons Sure Head.

Seedsmen's synonyms. *All Seasons*, Eic K&F SC.

Sutton's Earliest. SB. For similar names see *Earliest.*

Taber's Nonpareil. Entered as *Nonpareil.*

Tait's Champion. Tat. For similar names see *Early Champion.*

Tait's Early Jersey Wakefield, Tait's Extra Early Pilot, Tait's Grand Duke, Tait's May Queen, Tait's Victor Flat Dutch. Entered as *Early Jersey Wakefield, Extra Early Pilot, Grand Duke, May Queen,* and *Victor Flat Dutch.*

Tait's Extra Early. Tat. For similar names see *Archias' Extra Early.*

Thompson's Flat Head Early. Entered as *Early Flat Head.*

Thorburn's Colossal, Thorburn's Improved Red Stone Head, Thorburn's Market Gardener's Flat Dutch. Entered as *Colossal, Red Stone Head,* and *Market Gardener's Flat Dutch.*

Thorburn's Drumhead Savoy. Thr. For similar names see *Drumhead Savoy.*

Toledo Large Late Drumhead. HP.

Similar names. See *Large Late Drumhead.*

Toledo Market Gardener's Large Late Flat Dutch. HP.

Similar names. See *Large Late Flat Dutch.*

Twentieth Century. Brd *Vau* Vk.

Similar names. Twentieth Century No. 1, Twentieth Century No. 2, Twentieth Century No. 3.

Twentieth Century No. 1. Tlh. For similar names see *Twentieth Century.*

Twentieth Century No. 2. Tlh. For similar names see *Twentieth Century.*

Twentieth Century No. 3. Tlh. For similar names see *Twentieth Century.*

Twiss. *Pg.*

Similar names. Twiss Early Drumhead, Twiss Stone Mason, Gregory's Twiss.

Twiss Early Drumhead. Ggy. For similar names see *Early Drumhead.*

Twiss Stone Mason. S&F. For similar names see *Stone Mason.*

Ulm Savoy. Lan *Vl.* For similar names see *Early Dwarf Ulm Savoy.*

Vail's Early Flat Summer. Entered as *Early Summer Flat Head.*

Vandergaw. Brd Brt Bkt Bel *Bgg* Bri Bru Bui Bur *CE* Chl Cle Col Cox D&H Emr Ewg Fst Gls Gdn Gng Grw TG Hrn Jac Kra Lnr May McK *Pac* Ptt Por Pri Ren Ree Roc S&R Shm Sim Spf SB Tat Tem TB T&B Vau Wd Wdr.

Similar names. Vaughan's Vandergaw, Improved Vandergaw, Vandergaw Midsummer, Vandergaw Early Drumhead, Vandergaw All Seasons, Vandergaw Flat Dutch, Vandergaw Quick-Growing Flat Dutch.

Seedsmen's synonyms. *Lupton*, D&H DD. *Chicago Market*, Lnr. *All Seasons*, Brt Bkt Ggy Iow J&S Ptt, etc. *Midsummer*, Bui Bur Buc Roc.

Vandergaw Early Drumhead. Lan. For similar names see *Vandergaw*.

Vandergaw Flat Dutch. Mzy. For similar names see *Vandergaw*.

Vandergaw Midsummer. RE GH. For similar names see *Vandergaw*.

Vandergaw Quick-Growing Flat Dutch. Pri. For similar names see *Vandergaw*.

Van Namen's Excelsior, Van Namen's Excelsior Early White Dutch. Entered as *Excelsior* and *Excelsior Early White Dutch*.

Variegated. Chl.

Vaughan's Bridgeport Drumhead, Vaughan's Hollander, Vaughan's Premium Flat Dutch, Vaughan's Vandergaw. Entered as *Bridgeport Drumhead*, *Hollander*, *Premium Flat Dutch*, and *Vandergaw*.

Vertus. Dlw.

Similar names. De Vertus Savoy, Drumhead Vertus Savoy, Large Vertu Savoy, Mammoth Vertus.

Very Early Etampes. Fqr Fer Liv *JCM* Vin.

Seedsmen's synonyms. *Earliest of All*, Fer. *Wonderful*, Fer.

Very Early French. Tat.

Vick's Improved Danish Ball Head. Entered as *Danish Ball Head*.

Victor Flat Dutch. Tat. For similar names see *Flat Dutch*.

Victoria Savoy. *D&H* Ebe.

Similar names. Early Victoria Savoy, Queen Victoria.

Vincent's Improved Late Flat Dutch. Entered as *Late Flat Dutch*.

Volunteer. Raw. For similar names see *Rawson's Volunteer*.

Warren. Fer Ggy Mls HP. For similar names see *Stone Mason*.

Seedsmen's synonyms. *Improved Stone Mason*, Fer HP. *Stone Mason*, Mls. *Warren Stone Mason*, Ggy.

Warren Stone Mason. Brt *Bgg* Bgs *Bri* Brw C&J *CE* Cle Ebe Fqr Gls GH Hop Koe Pg *Raw* Rce *Rs* S&F *Til* Vk.

Similar names. See *Stone Mason*.

Seedsmen's synonyms. *Warren*, Ggy.

Washington Wakefield. CE Fmr Iow NK Rtk TB.

Similar names. See *Early Jersey Wakefield*.

White Brunswick. Pnt SC. For similar names see *Fottler's Brunswick*.

Willet's All Seasons Sure Head. Entered as *All Seasons Sure Head*.

Will's Premium Flat Dutch. Entered as *Premium Flat Dutch*.

Winningstadt. Cam Chl Ebe Fqr Gls Haw Hrs Hbt H&P Iow MWJ *RHJ* J&M Kei Lan Mau McM Por Pot Pri Pug S&R S&F *SB* S&H *Vl* Wea W&D Wd WS.

Similar names. See *Early Winningstadt*.

Winter Danish Ball Head. Bri Ebr Fst M&S Sie Thr.

Similar names. See *Danish Ball Head*.

Seedsmen's synonyms. *Hollander*, Thr.

Winter King. Alr. For similar names see *Autumn King*.

Wonderful. J&S Sal.

Similar names. Johnson's Wonderful.

Seedsmen's synonyms. *Earliest of All*, Fer. *Very Early Etampes*, Fer.

Wood's Early Jersey Wakefield, Wood's Prize Head Late Flat Dutch. Entered as *Early Jersey Wakefield* and *Prize Head Late Flat Dutch*.

Wood's Extra Early. Wd. For similar names see *Archias' Extra Early*.

Wood, Stubbs & Co.'s Early Jersey Wakefield. Entered as *Early Jersey Wakefield*.

World Beater. Alx Bkt Bel Bri Bru Bui Brb Bur Chl Cle Col CA D&H Del *Ebr* RE Frd GH G&T TG *H&C* Hlm Hse Iml MWJ J&S Kg Lam Man PM Mau McK McM Nol Pri Qkr Raw Rce S&O Sie Tem Vk.

Similar names. Burpee's World Beater.

Seedsmen's synonyms. *Autumn King*, Alx Bui Bur Liv Mau Raw, etc.

CARDOON.

Cardoon. MWJ Lan Mhl Roc Sal Vau.

Large Smooth. Raw.
Large Smooth Solid. Drr Ewg Gra.
Large Smooth Spanish. Brk.
Large Solid. Bdg DD Emr Lnr Mnd Tat Thr Vin W&D.
Large Spanish. Buc C&B Fqr Hen Kei M&S Pnt Ptt Pot SC Sim.

CARROT.

Agricultural Wonder. Mls.
Similar names. Mills' Agricultural Wonder.
Alneer's Beauty. Alr. For similar names see *American Beauty*.
Alneer's Intermediate. Alr. For similar names see *Intermediate*.
Altringham. Bdg Bru Cle Drr Ebe Emr RE Ger *RHJ* Mnd HP Sim *Wat*.
Similar names. Altringham Forcing, Long Red Altringham, Long Scarlet Altringham, Large Red Altringham, American Red Altringham.
Seedsmen's synonyms. *Long Orange*, Bdg. *Long Scarlet*, Bdg. *Surry*, Bdg.
Altringham Forcing. Del GH. For similar names see *Altringham*.
American Beauty. Roc Shm.
Similar names. Shumway's American Beauty, Alneer's Beauty.
American Luc Half Long. M&S. For similar names see *Luc*.
American Red Altringham. M&S. For similar names see *Altringham*.
Barnard's Improved Danvers. Entered as *Danvers*.
Beith's Mammoth White. Cle Man. For similar names see *Mammoth White*.
Belgian. Cox.
Similar names. Norman Belgian, Large Belgian, Large Red Belgian, White Belgian, Large White Belgian, Large White Green Top Belgian, Long White Green Top Belgian, Long White Belgian, Mammoth White Belgian, Improved Large White Belgian, Giant White Belgian, Yellow Belgian, Long Yellow Belgian, Large Yellow Belgian, Mammoth Yellow Belgian, Orange Belgian, Long Orange Belgian, Large Orange Belgian.
Seedsmen's synonyms. *Long White*, Cox.
Bellot. Thr.
Blunt-Rooted Horn. Lan. For similar names see *Early Scarlet Horn*.
Bruce's Mammoth Intermediate Smooth White. Bru.
Similar names. See *Improved Intermediate White*.
Buckbee's Danvers, Buckbee's Improved Short White, Buckbee's Majestic, Buckbee's Victoria. Entered as *Danvers*, *Short White*, *Majestic*, and *Victoria*.
Buckbee's Earliest Forcing. Buc. For similar names see *French Forcing*.
Buist's Improved. Bui.
Seedsmen's synonyms. *Prize Long Orange*, Bui.
Buist's Improved Early Half Long Scarlet, Buist's Improved Half Long Scarlet. Entered as *Early Half Long Scarlet* and *Half Long Scarlet*.
Burpee's Improved Long Orange. Entered as *Long Orange*.
California Mammoth. Sal.
Carentan. Bri Cle Elt Lan Mzy Prn Ree Thr.
Similar names. Scarlet Carentan, Early Half Long Scarlet Carentan, Half Long Scarlet Carentan, Half Long Carentan, Half Long Stump-Rooted Carentan, Early Half Long Carentan.
Carter's Gatepost Orange, Carter's Orange Giant. Entered as *Gatepost Orange* and *Orange Giant*.

Champion Feeder. Mnd.

SIMILAR NAMES. Ontario Champion.

Chantenay. Alx Alr Bai Brd Brt Btl Bow Brk Bri Bng Bur Brr Brw C&J Cam Cle C&B Col Cox Cur Dlw D&H DD *Ebr* Eic RE Evr Fmr Fqr Fer Fle Frd Gls Gdn GH Gng GN Ggy G&T Grw Hns Ham Hrm Hrn Hrv Hst Hbt Hly Hlm Hop H&P Jer *RHJ* J&M J&S Jns K&W Kos Lam Lnr LB Liv Mgd Mns Mau May JCM McK M&S Mrs Neb Nef Nol NK OV Pac *Pg* Pks Poo Por Pot Pri Ree Ren Roc Rs Sal S&R S&O Shm Sie Sox Spf S&H Thm AGT Til *Tpk* Vl Wea Web Wer Y&H.

SIMILAR NAMES. Chantenay Stump-Rooted, Hammond's Chantenay, Early Chantenay, Early Half Long Scarlet Chantenay, Half Long Scarlet Chantenay, Scarlet Chantenay Stump-Rooted, Half Long Scarlet Stump-Rooted Chantenay, Half Long Stump-Rooted Chantenay, Half Long Chantenay.

SEEDSMEN'S SYNONYMS. *Half Long Scarlet Stump-Rooted*, Ken. *Model*, Brw Bur DD Frd Pac Roc, etc. *Pearce's Scarlet Model*, D&H.

Chantenay Stump-Rooted. Brn Iml Loh Mic Vk.

SIMILAR NAMES. See *Chantenay*.

Cooper's Yellow Intermediate. Ren. For similar names see *Intermediate*.

Cowboy Field. Sal. For similar names see *White Field*.

Cox's Improved Long Orange. Entered as *Long Orange*.

Crecy. Vin.

Danvers. Agn Bak Brd Btl Blg Buc Brr Chl C&B CF Cox Cur Drw Eas Fax Fer Fle Frd GN Ggy G&T TG Ham Hrn Hrv Hen Hly Hlm Hop H&P Iow Jer J&M Kos Kra Lnr Liv JL Man Mns Mau JMM Mls Min Neb Old Pks Prn Pne Ptt Poo *Rtk* Roc *Rs* SC S&F S&B Shm S&H S&W Thm Thb *Tth* *Vl* Vau *Wer* Wdr Wyg Y&*H*.

SIMILAR NAMES. Buckbee's Danvers, Maule's Danvers, Mills' Danvers, Vaughan's Danvers, Improved Danvers, Barnard's Improved Danvers, Hammond's Improved Danvers, Half Long Danvers, Improved Half Long Danvers, Early Half Long Danvers, Half Long Pointed Danvers, Half Long Red Danvers, Half Long Scarlet Danvers, Half Long Orange Danvers, Half Long Stump-Rooted Danvers, Orange Danvers, Danvers Orange Intermediate, Orange Danvers Stump-Rooted, Danvers Stump-Rooted, Danvers Pointed, Yellow Danvers.

SEEDSMEN'S SYNONYMS. *Half Long Orange*, Agn Cox. *Half Long Scarlet Luc*, McK Ren.

Danvers Intermediate. Eic Hst Stk. For similar names see *Intermediate*.

Danvers Orange Intermediate. Bdg. For similar names see *Danvers*.

Danvers Pointed. M&S Y&H. For similar names see *Danvers*.

Danvers Stump-Rooted. EBC Y&H. For similar names see *Danvers*.

Dreer's Perfect Forcing. Entered as *Perfect Forcing*.

Dutch Horn. RHJ. For similar names see *Early Scarlet Horn*.

Earliest Forcing. Roc. For similar names see *French Forcing*.

Earliest French Forcing. Bai *Ber* Bui Elt Gry J&M Ptt Shm Vl Vk.

SIMILAR NAMES. See *French Forcing*.

Earliest French Short Horn. Lam. For similar names see *Early Scarlet Horn*.

Earliest Red Horn. Hde. For similar names see *Early Scarlet Horn*.

SEEDSMEN'S SYNONYMS. *French Forcing*, Hde.

Earliest Scarlet Forcing. C&J. For similar names see *French Forcing*.

Earliest Scarlet French Forcing. Fqr. For similar names see *French Forcing*.

Earliest Short Horn. Drr Fer Min Pg SB.

SIMILAR NAMES. See *Early Scarlet Horn*.

SEEDSMEN'S SYNONYMS. *Early Very Short Scarlet*, Bur. *French Forcing*, Drr Lam RP. *Golden Ball*, Bur Drm. *Very Early Scarlet*, Drm.

Early Chantenay. Buc Old Vau Yng. For similar names see *Chantenay*.

Early English Horn. Bru Gng. For similar names see *Early Scarlet Horn.*

Early Favorite. *Ham.*

Early Forcing. Btl Mnd Ree Thr. For similar names see *French Forcing.*

Early French Forcing. Alr Anb *Bgg* Bng Buc Bui CE Cle C&B CF Cox Cur Evr Fmr Fst GH TG Hrm Hen *H&C* Hlm H&P RHJ J&M K&W Kos *Lnr* LB Mas JCM MV Mzy NK OV *Pac* Prn Pne Pot Roc Rt Sox S&W *Tpk* Trm T&B Vin W&D Wer Wdr Yng.

SIMILAR NAMES. See *French Forcing.*

Early French Forcing Horn. *Bel* Bow Brr Ger.

SIMILAR NAMES. See *Early Scarlet Horn.*

Early French Horn. Bel Kei. For similar names see *Early Scarlet Horn.*

Early French Short Horn. Hrs H&P Jns *Vl.*

SIMILAR NAMES. See *Early Scarlet Horn.*

Early Gem. McK Ren.

SEEDSMEN'S SYNONYMS. *Guerande,* Ren. *Oxheart,* McK Ren.

Early Guerande Half Long. Bru. For similar names see *Guerande.*

Early Half Long. DD. For similar names see *Half Long.*

Early Half Long Carentan. Drr Hrn Lam Spf. For similar names see *Carentan.*

Early Half Long Danvers. Pir Vl. For similar names see *Danvers.*

Early Half Long Nantes. Blg Vau. For similar names see *Nantes.*

Early Half Long Scarlet. Bou Bui C&B CF *DD* Drr Fer Hrn Hen Jac J&S Lam Mau Mhl Min Nol Raw SC Spf S&H Vin.

SIMILAR NAMES. See *Half Long Scarlet.*

Early Half Long Scarlet Carentan. Bui C&B Dlw Fer GH Hen Ptt Ren.

SIMILAR NAMES. See *Carentan.*

Early Half Long Scarlet Chantenay. Blg Bui.

SIMILAR NAMES. See *Chantenay.*

Early Half Long Scarlet Nantes. Bui CF Kra Liv *S&W* Vin.

SIMILAR NAMES. See *Nantes.*

Early Half Long Scarlet Pointed. GH M&S.

SIMILAR NAMES. See *Half Long Scarlet.*

Early Half Long Scarlet Striped. GH.

SIMILAR NAMES. See *Half Long Scarlet.*

Early Half Long Scarlet Stump-Rooted. Bow Ken K&F Loh Neb Pnt.

SIMILAR NAMES. See *Half Long Scarlet.*

Early Horn. Btl Ebe Ewg H&C K&W Mns MV Mrs Pri Pug S&F Sox AGT Wll.

SIMILAR NAMES. See *Early Scarlet Horn.*

Early Long Forcing. Roc Shm. For similar names see *French Forcing.*

Early Long Scarlet. DD. For similar names see *Half Long Scarlet.*

Early Market Favorite. Roc Shm.

SIMILAR NAMES. See *Livingston's Early Market.*

Early Orange Horn. Bdg. For similar names see *Early Scarlet Horn.*

Early Oxheart. Bak Blg Bow Bui Del Jac Pug. For similar names see *Oxheart.*

SEEDSMEN'S SYNONYMS. *Guerande,* Bow Bui Bak Jac Pug.

Early Round Forcing. *Pnt.*

Early Round Parisian. GH Mzy Thr.

Early Rubicon. Blg. For similar names see *Rubicon.*

Early Scarlet. Drm Fmr LB NK. For similar names see *Half Long Scarlet.*

Early Scarlet Dutch Horn. Bui. For similar names see *Early Scarlet Horn.*

Early Scarlet English Horn. D&H Sim.

SIMILAR NAMES. See *Early Scarlet Horn.*

SEEDSMEN'S SYNONYMS. *Half Long Scarlet Horn,* Sim.

Early Scarlet Forcing. Brk S&F Vau. For similar names see *French Forcing.*

Early Scarlet French Forcing Horn. Gng.

SIMILAR NAMES. See *Early Scarlet Horn.*

Early Scarlet French Horn. Bru. For similar names see *Early Scarlet Horn.*

Early Scarlet Horn. Alr Anb Ar Bai Brt Btl Bkt Ber Blg Bou Bow Bgg Brk Bgs Bri Bng Buc Bur Cam CE C&B Col CF Cox Cur Dlw Drr Ebr *Eic* Elt Emr Evr Fqr Fst Fax Fer Fle Ger Gdn GH Gra Ggy Gry G&T TG Hns Ham Hrm Hen Hly Iml Iow RHJ J&S K&W Ken Kos Lam Lan Liv Loh *Lon* Mgd Man PM Mas Mau May JCM JMM McK Mel Mhl Mzy Nol OV Old Pac Pg HP JMP Pir *Pnt* Ptt Poo Pot Qkr Raw Ree Ren Rce Roc Rs RP Sal SC S&F Shw Shm Sie Stk SB S&W Tat Tem Tex TB Thr *Thb* Til Tpk Trm Vl Vk Wat Web W&D Wer Wd WS Y&H.

Similar names. Earliest Red Horn, Early Orange Horn, Scarlet Horn, Early Horn, Short Horn, Extra Early Horn, Earliest Short Horn, Early Short Horn, Early Short Horn Stump-Rooted, Early Scarlet Horn, Early Scarlet Horn Pointed, Early Scarlet Horn Blunt-Rooted, Scarlet Short Horn, Blunt-Rooted Horn, Point-Rooted Horn, Dutch Horn, Early Scarlet Dutch Horn, Early Scarlet English Horn, Early English Horn, Early French Horn, French Short Horn, French Horn, French Forcing Horn, Early French Forcing Horn, Early French Short Horn, Earliest French Short Horn, Extra Early French Short Horn, Early Scarlet French Horn, Early Scarlet French Forcing Horn.

Seedsmen's synonyms. *Short Horn*, Bur Fst Fmr LB NK Pac Wdr.

Early Scarlet Horn Blunt-Rooted. Koe Lan Stw.

Similar names. See *Early Scarlet Horn.*

Early Scarlet Horn Pointed. Lan Stw. For similar names see *Early Scarlet Horn.*

Seedsmen's synonyms. *Half Long Scarlet Horn*, Lan.

Early Scarlet Horn Stump-Rooted. Neb.

Similar names. See *Early Scarlet Horn.*

Early Scarlet Short Horn. Brd Crs Drm RE Hlm Liv JL Mhl Nef Nol Por S&R S&B Vin Yng.

Similar names. See *Early Scarlet Horn.*

Early Scarlet Stump-Rooted. Pks. For similar names see *Half Long Scarlet.*

Early Short Horn. Brn C&J Crg CA Eic Haw Hnt Kei Lnr Prn Sal S&O Wdr.

Similar names. See *Early Scarlet Horn.*

Early Short Horn Stump-Rooted. *Pac* Pnt SC T&B.

Similar names. See *Early Scarlet Horn.*

Early Short Scarlet. Bur Eas RE Ggy Kra Ren Sim Vau.

Similar names. See *Half Long Scarlet.*

Seedsmen's synonyms. *French Forcing*, RE.

Early Very Short Scarlet. Bur Ren Sim.

Seedsmen's synonyms. *Earliest Short Horn*, Bur. *French Forcing*, Ren. *Golden Ball*, Bur Sim.

English. Pks.

Seedsmen's synonyms. *French Horn*, Pks.

Extra Early Forcing. Bdg DD Hns Koe Lan Mic Pnt.

Similar names. See *French Forcing.*

Seedsmen's synonyms. *Orange Turnip Rooted*, Bdg.

Extra Early French Forcing. Emr Pac Spf.

Similar names. See *French Forcing.*

Extra Early French Short Horn. Pri. For similar names see *Early Scarlet Horn.*

Extra Early Horn. Ewg MWJ. For similar names see *Early Scarlet Horn.*

Extra Early Parisian Forcing. W&D.

Extra Early Short Forcing. Btl. For similar names see *French Forcing.*

Farmer Seed Co.'s Market. Fmr.

Similar names. See *Livingston's Early Market.*

Ferry's Improved Short White. Entered as *Short White.*

First of All. Sal.

Similar names. Salzer's First of All.

French. Mau.

Similar names. French Market, Half Long Scarlet French.

French Forcing. *Bow* Cox Cur Drw RE Frd Grw Ham Hde Man May JMM *McK* Mhl Mrs Nol HP Por Raw Ren RP Sal S&R Sie Wll.

Similar names. Early French Forcing, Extra Early French Forcing, Earliest French Forcing, French Red Forcing, Salzer's French Forcing, Earliest Scarlet French Forcing, Small French Forcing, Early Forcing, Extra Early Forcing, Earliest Forcing, Earliest Scarlet Forcing, Early Scarlet Forcing, Extra Early Short Forcing, Early Long Forcing, Red Parisian Forcing, Salzer's Forcer, Buckbee's Earliest Forcing, Dreer's Perfect Forcing, Perfect Forcing.

Seedsmen's synonyms. *Earliest Red Horn*, Hde. *Earliest Short Horn*, Drr Lam RP. *Early Short Scarlet*, RE. *Early Very Short Horn Scarlet*, Ren. *Golden Ball*, Frd. *Short Horn*, Bui. *Very Early Short Horn Scarlet*, Mhl Nol.

French Forcing Horn. *CE* Gra S&O Y&H.

Similar names. See *Early Scarlet Horn.*

French Horn. Mrs Pks. For similar names see *Early Scarlet Horn.*

Seedsmen's synonyms. *English Horn*, Pks.

French Intermediate. Bru. For similar names see *Intermediate.*

French Market. Brw J&S M&S Nol. For similar names see *French.*

French Red Forcing. M&S. For similar names see *French Forcing.*

French Short Horn. Eas Hrv. For similar names see *Early Scarlet Horn.*

Gatepost Orange. Kei. For similar names see *Long Orange.*

Giant Short White. Mls JMM Sim. For similar names see *Short White.*

Giant Short White Vosges. Gra. For similar names see *Vosges.*

Giant Victoria. Evr. For similar names see *Victoria.*

Giant White Australian. M&S.

Giant White Belgian. Brn *Gls Vl.* For similar names see *Belgian.*

Giant White Vosges. Ren. For similar names see *Vosges.*

Golden Ball. Drm Frd Mau Sim.

Similar names. Scarlet Golden Ball.

Seedsmen's synonyms. *Earliest Short Horn*, Bur Drm. *Early Very Short Scarlet*, Bur Sim. *French Forcing*, Frd. *Very Early Scarlet*, Drm.

Golden Rod. *Mau.*

Green Top Orthe. Ewg.

Similar names. Improved White Green Top Orthe, White Green Top Orthe.

Guerande. Agn All Anb Bai Bak Brd Brt Btl Bel Ber Bow Brk Bdg Bgs Bri Brn Buc Bui Bur Brr C&J CE C&B Col CF Cox Crs Cur Dlw DD D&C Drr Drw Drm Ebe Ebr Elt Emr RE Fmr Fqr Fst Fer Fle Ger Gls Gdn GH Gng GN Ggy Gry G&T Grw TG Hns Hrm Hrn Hrs Hrv Haw Hen Hse H&P Jac RHJ J&S J&M Jns Kei Kg Kos Kra Lam Lan Lnr LB Liv JL Loh Man Mns Mas May JCM JMM *McK* Mhl Mls M&S Neb NI NK OV Old Pac Pg Pks HP Pir Pnt Ptt Pot Pri Pug Qkr Raw Rce Roc Rs RP Sal SC S&F S&O Shm Sie Sox Spf SB S&H *S&W* Tex AGT *Tpk* Trm Vau Vk Vin *Wat* Wea Web W&D Wer Wll Wd Wdr WS Wyg Y&H.

Similar names. Half Long Guerande, Early Guerande Half Long, Half Long Stump-Rooted Guerande, Oxheart Guerande.

Seedsmen's synonyms. *Early Gem*, Ren. *Early Oxheart*, Bak Bow Bui Jac Pug. *Half Short Oxheart*, Thr. *Oxheart*, Bur Drr Fqr Fer Hen Lam, etc. *Oxheart Orange*, Bgs S&O.

Half Long. Gdn Gfg Sim Tpk.

Similar names. Improved Half Long, St. James Half Long, Harris' Perfected Half Long, Harris' Half Long, Early Half Long, Half Long Red, Half Long

Red Stump-Rooted, Half Long Point-Rooted, Half Long Stump-Rooted, Improved Half Long Stump-Rooted.

Seedsmen's synonyms. *Early Scarlet English Horn*, Sim.

Half Long Carentan. CE Gra Gng RHJ Mnd Tat Til.

Similar names. See *Carentan.*

Half Long Chantenay. *CE* CF Drr Ebe *Eic* Ewg Gra TG Jac Koe Mnd Mhl JMM Raw Ree.

Similar names. See *Chantenay.*

Half Long Coreless. H&P Lan Rim Tat. For similar names see *Red Coreless.*

Half Long Danvers. Alx Anb Bai Bak Brd Brt Bkt Bel Ber Bgg Brk Bri Brn Bru Bng Buc Brb Cam CE Cle Col *Cox* CA Dlw Del DD Drm Dun Ebe Ebr Emr RE Ewg Fmr Fqr Ger Gdn GH Gra Gry Hns Hrm *Hrs* Haw H&C Iow RHJ J&S Jns Kei Ken K&F Kg Lam LB Loh Mnd Mgd Mas May JCM McM Mic Mhl MV M&S Mrs Nef Nol NI NK OV *Old Pac* Pg *Pnt* Pot Pri Raw Roc Rs RP S&R S&F Shw S&O Sim Sox Spf SB Tat TB *Thon* Thr AGT Til *Tpk* Trm T&B Vau Vin Wat Wea Web W&D Wer Wll Wd WS.

Similar names. See *Danvers.*

Half Long Guerande. Ewg Gra MV S&R Sim *Sox* Vl Vin.

Similar names. See *Guerande.*

Seedsmen's synonyms. *Oxheart*, Ewg Gra Hde J&S Por S&R, etc.

Half Long Intermediate. Mrs. For similar names see *Intermediate.*

Half Long Luc. Bkt Ebe Eic Kei *Ree* Stk SB. For similar names see *Luc.*

Half Long Nantes. Brn Bng Drr Ebe Eic Ewg GH Gra TG Jns *Lam* Lan Lnr Mnd Man Nol *Por* Raw *S&R* S&W Trm Wer.

Similar names. See *Nantes.*

Half Long Orange. Agn Blg Cox Fld Hnt Mns.

Similar names. See *Long Orange.*

Seedsmen's synonyms. *Danvers*, Agn Cox.

Half Long Orange Danvers. Bow Bgs Bur C&J *Can* Crs Dlw D&C Drr Elt Evr Fst Hbt Iml *Jer* Lan Pac HP JMP Pnt Por Qkr Ree Rt S&R Stw Vk.

Similar names. See *Danvers.*

Half Long Orange Rubicon. J&S. For similar names see *Rubicon.*

Half Long Point-Rooted. Bkt Bri Ebr Ewg Mzy Thr.

Similar names. See *Half Long.*

Half Long Pointed Danvers. Grw PM Ree. For similar names see *Danvers.*

Half Long Red. Bdg C&B Cox Cur Hen. For similar names see *Half Long.*

Half Long Red Danvers. Gng. For similar names see *Danvers.*

Half Long Red Nantes. Alr. For similar names see *Nantes.*

Half Long Red Orange. Bdg. For similar names see *Long Orange.*

Half Long Red Stump-Rooted. Hly *Pac* S&W T&B.

Similar names. See *Half Long.*

Half Long Red Stump-Rooted Nantes. Crs. For similar names see *Nantes.*

Half Long Rubicon. DD Hop *Lan* Mhl M&S Neb Nol Pnt Wea.

Similar names. See *Rubicon.*

Half Long Scarlet. Bui Crg Ebe Fqr Hst NI Pir Shw Wd WS.

Similar names. Buist's Improved Half Long Scarlet, Buist's Improved Early Half Long Scarlet, Half Long Scarlet Stump-Rooted, Half Long Scarlet Pointed Root, Early Half Long Scarlet, Early Half Long Scarlet Striped, Early Half Long Scarlet Stump-Rooted, Early Half Long Scarlet Pointed, Early Scarlet, Early Scarlet Stump-Rooted, Early Short Scarlet, Early Long Scarlet, Scarlet Stump-Rooted, Large Scarlet Stump-Rooted, Long Scarlet. See also *Long Scarlet Carentan*, *Half Long Scarlet Chantenay*, *Long Scarlet Altringham*, etc.

Half Long Scarlet Carentan. Cur. For similar names see *Carentan.*

Half Long Scarlet Chantenay. Bgs Bru Crs *RE* Hen Lan JL JMM HP Ptt Sim Stk SB Stw W&D Wdr.

Similar names. See *Chantenay.*

Half Long Scarlet Danvers. Ar Bui Jac Tex. For similar names see *Danvers.*

Half Long Scarlet French. Eic Stk.

Similar names. See *Half Long Scarlet, French.*

Half Long Scarlet Luc. McK Ren. For similar names see *Luc.*

Seedsmen's synonyms. *Danvers,* McK Ren.

Half Long Scarlet Nantes. Bak Brd Btl Buc Dlw RE Evr Fer Gls Gng Grw Hrv Kei *Lnr* Mns JMM McK Old Pks Ren Roc S&F SB Til Wdr Yng.

Similar names. See *Nantes.*

Half Long Scarlet Pointed Root. C&J Kos.

Similar names. See *Half Long Scarlet.*

Half Long Scarlet Stump-Rooted. Bui Bur D&H Hlm H&P Jns Lea McM Pac *Put* Por Pug S&R Vl W&D.

Similar names. See *Half Long Scarlet.*

Seedsmen's synonyms. *Chantenay,* Ken.

Half Long Scarlet Stump-Rooted Chantenay. Kei Ken Shm.

Similar names. See *Chantenay.*

Half Long Scarlet Stump-Rooted Nantes. May Vk.

Similar names. See *Nantes.*

Half Long Stump-Rooted. Bai Bkt D&H Elt Ewg Gra Hrm Hrv Kra JCM Mrs OV Thr *Tpk* Web.

Similar names. See *Half Long.*

Half Long Stump-Rooted Carentan. Ken MV *Pac Sox* S&W T&B.

Similar names. See *Carentan.*

Half Long Stump-Rooted Chantenay. Gng MV *Sox* S&W Thr T&B.

Similar names. See *Chantenay.*

Half Long Stump-Rooted Danvers. *Bgg* Brw PM Rce Sie.

Similar names. See *Danvers.*

Half Long Stump-Rooted Guerande. Ggy Mzy.

Similar names. See *Guerande.*

Seedsmen's synonyms. *Oxheart,* Ggy.

Half Long Stump-Rooted Luc. Thr W&D. For similar names see *Luc.*

Half Long Stump-Rooted Nantes. Bgs *CE* Ebr *May* Mzy Rce S&O Thr.

Similar names. See *Nantes.*

Half Short Oxheart. Thr. For similar names see *Oxheart.*

Seedsmen's synonyms. *Guerande,* Thr.

Hammond's Chantenay, Hammond's Improved Danvers, Hammond's Early Favorite, Hammond's Midseasons, Hammond's Maud. Entered as *Chantenay, Danvers, Early Favorite, Midseasons,* and *Maud.*

Handsome. Jns.

Harris' Half Long. Hrs. For similar names see *Half Long.*

Harris' Perfected Half Long. Entered as *Harris' Half Long.*

Henderson's Intermediate. *Blg* Hen Ren Rs. For similar names see *Intermediate.*

Henderson's Intermediate Red. Rs. For similar names see *Intermediate.*

Henderson's New York Market. Entered as *New York Market.*

Holstein Mammoth White. May. For similar names see *Mammoth White.*

Hopkins' Milverton White. Entered as *Milverton White.*

Improved Danvers, Improved Half Long, Improved Half Long Danvers, Improved Half Long Stump-Rooted, Improved Intermediate, Improved Intermediate White, Improved Large White Belgian, Improved Long Orange, Improved Long Red St. Valery, Improved Rubicon, Improved Scarlet Intermediate, Improved Short Thick White, Improved Short White, Improved White Green

Top Orthe. Entered as *Danvers, Half Long, Half Long Danvers, Half Long Stump-Rooted, Intermediate, Intermediate White*, etc.

Intermediate. Bgg Buc Bur Cok D&H *DD* H&C J&S Ken Mns JCM JMM M&S OV Pac HP Pri Roe SC Tem Vk W&D Y&H.

Similar names. Improved Intermediate, Danvers Intermediate, Vincent's Intermediate, McCullough's Intermediate, James' Intermediate, Henderson's Intermediate, Alneer's Intermediate, Scarlet Intermediate, Wood's Scarlet Intermediate, James' Scarlet Intermediate, Improved Scarlet Intermediate, Long Scarlet Intermediate, Red Intermediate, Henderson's Red Intermediate, Shumway's Red Intermediate, Yellow Intermediate, Cooper's Yellow Intermediate, White Intermediate, Mammoth White Intermediate, Half Long Intermediate, Pointed Intermediate, French Intermediate.

Seedsmen's synonyms. *Long Red St. Valery*, D&H. *St. Valery*, Bur Cur H&C J&S Mns Vk, etc.

James' Intermediate. Ebr TG Kra Mnd May HP S&W Vau.

Similar names. See *Intermediate*.

James' Intermediate Scarlet. *CE* Ewg Gra Hde Kei Ree.

Similar names. See *Intermediate*.

Large Belgian. Del. For similar names see *Belgian*.

Large Orange. Crs. For similar names see *Long Orange*.

Large Orange Belgian. Ken Liv Vau. For similar names see *Belgian*.

Large Red Altringham. Bur Hlm Sim. For similar names see *Altringham*.

Large Red Belgian. M&S. For similar names see *Belgian*.

Large Scarlet Stump-Rooted. Ken. For similar names see *Half Long Scarlet*.

Seedsmen's synonyms. *Oxheart*, Ken.

Large White. Brk.

Large White Belgian. Alx Alr Bai Btl Bdg Bgs Bri Bur Brr CE C&B Col Crs Cur Dlw Drr Eas Ebe Elt Emr Evr Fst Fer Fle Frd Ger GH Ggy Hns Hrm Hrn Hrs Hst RHJ J&M J&S Jns K&W Ken Koe Kos Kra Lam Lan *Lnr* JL Loh Mau May JMM McM Mls Min MV Mzy OV Old *Pac* Pg Pks HP Pnt Poo Por Pug Raw Ren Ree Rs RP S&R SC S&F Shw S&O Sie Sim Sox Stw S&H Tat AGT Til Tpk T&B Vl Wea Web Wd WS.

Similar names. See *Belgian*.

Seedsmen's synonyms. *Long White*, Bdg.

Large White Green Top Belgian. Gls. For similar names see *Belgian*.

Large White Vosges. Bru Buc Bur Col Ebe Fst GH Iow Mau McK Mrs Pks Roc.

Similar names. See *Vosges*.

Large Yellow. Brk.

Large Yellow Belgian. Ar Btl Ber Bgs Bri Bur *CE* Dlw Fmr Fst Ger GH Hns Hlm MWJ J&M J&S *Jns* Kra Lan Mau JCM MV OV Ree Sox *Tpk*.

Similar names. See *Belgian*.

Light Yellow. Hrs. For similar names see *Long Yellow Stump-Rooted*.

Lilly, Bogardus & Co.'s Mastodon, Lilly, Bogardus & Co.'s Victoria. Entered as *Mastodon* and *Victoria*.

Livingston's Early Market. Liv.

Similar names. Farmer Seed Co.'s Market, Rennie's Market Garden, Henderson's New York Market, New York Market, Milwaukee Market, Early Market Favorite, Shumway's Early Market Favorite, Pride of the Market, Market Gardener.

Long Lemon Stump-Rooted. Mau Vau.

Long Meaux. Ebe. For similar names see *Red Meaux*.

Long Nantes Stump-Rooted. M&S. For similar names see *Nantes*.

Long Orange. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Blg Bou Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr Brw C&J Cam CE Chl

EBC Cle C&B Col CF Cok Cox Crg Crs Cur CA Dlw D&H Del DD D&C Drr Drw Drm Dun Eas Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Fle Frd Ger Gls Gdn GH Gra Gng GN Ggy Gry Gfg G&T Grw TG Hns Hde Hrm Hrn Hrs Hrv Hst Haw Hen H&C Hly Hlm Hop Hse Hnt H&P Ind Iow Jac MWJ RHJ J&M J&S Jns Kei K&W Ken Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Mnd Mgd Man PM Mns Mas May Mau JCM *JMM* McM Mel Mic Mhl Mls Min MV M&S Mrs Mzy Neb Nef Nol NI NK OV Pac Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr Raw Ree Ren Rce Roc Rs RP Sal S&R SC S&F Shw S&O Shm Sie Sim Sox Spf Stk S&H S&W Tat Tem Tex TB Thm Thr Thb AGT *Tlh* Til Tpk Trm T&B *Tl* Van Vk Vin Wat Wea Web W&D Wer Wll Wlt Wd Wdr WS Wyg Yng Y&H.

Similar names. Large Orange, Orange, Improved Long Orange, Salzer's Improved Long Orange, Nichols' Improved Long Orange, Mills' Improved Long Orange, Maule's Improved Long Orange, Burpee's Improved Long Orange, Cox's Improved Long Orange, Nichols' Long Orange, Prize Long Orange, Gatepost Orange, Carter's Gatepost Orange, Carter's Orange Giant, Orange Giant, Mammoth Orange, Half Long Orange, Half Long Red Orange.

Seedsmen's synonyms. *Altringham*, Bdg. *Long Scarlet*, Bdg. *Red Surry*, SB. *Orange Belgian*, McK Ren. *St. Valery*, Lan. *Surry*, Bdg.

Long Orange Belgian. Bru Old. For similar names see *Belgian*.

Long Red. Fld.

Similar names. Long Red Stump-Rooted.

Long Red Altringham. Bgs Buc Bur *CE* Dlw Ewg Fmr Gra Kei JCM Mrs Pac Pnt Ren Rce Roc Shm.

Similar names. See *Altringham*.

Long Red Coreless. Bri Bur *CE* Eic GH Ggy J&M Kei Lan Mrs Rce Stk Stw Thm.

Similar names. See *Red Coreless*.

Long Red St. Valery. Bgs *CE* D&H RE M&S.

Similar names. See *St. Valery*.

Seedsmen's synonyms. *Intermediate*, D&H.

Long Red Stump-Rooted. Ewg Gra Spf. For similar names see *Long Red*.

Long Red Surry. Buc M&S *Nol* Roc. For similar names see *Surry*.

Long Scarlet. Bdg. For similar names see *Half Long Scarlet*.

Seedsmen's synonyms. *Altringham*, Bdg. *Long Orange*, Bdg. *Surry*, Bdg.

Long Scarlet Altringham. Bru Fle Hde Ken SC SB.

Similar names. See *Altringham*.

Long Scarlet Exhibition. Mnd.

Long Scarlet Intermediate. Thr. For similar names see *Intermediate*.

Long Nantes. M&S. For similar names see *Nantes*.

Long White. Cox Mnd Thr.

Similar names. Long White Green Top.

Seedsmen's synonyms. *Belgian*, Cox. *Large White Belgian*, Bdg.

Long White Belgian. Bel Bow Dun Fmr *RHJ* Pac Pks Pri Sal Shm Tem Thm Trm Vin Wer.

Similar names. See *Belgian*.

Long White Green Top. Liv. For similar names see *Long White*.

Long White Green Top Belgian. Vau. For similar names see *Belgian*.

Long Yellow Belgian. Pks SB. For similar names see *Belgian*.

Seedsmen's synonyms. *Orange Belgian*, SB.

Long Yellow Stump-Rooted. Bur *Chl Ren*.

Similar names. Yellow Giant, Light Yellow, Yellow.

Luc. Lnr.

Similar names. Half Long Luc, American Luc Half Long, Half Long Scarlet Luc, Half Long Stump-Rooted Luc.

McCullough's Intermediate. JMM. For similar names see *Intermediate.*

Majestic. Buc Roc.

Similar names. Buckbee's Majestic.

Mammoth Orange. Mrs Shm. For similar names see *Long Orange.*

Mammoth White. Frd *Man McK.*

Similar names. Beith's Mammoth White, Holstein Mammoth White.

Mammoth White Belgian. Buc Roc. For similar names see *Belgian.*

Mammoth White Intermediate. Brn Ren.

Similar names. See *Intermediate, Improved Intermediate White.*

Mammoth White Vosges. Fmr. For similar names see *Vosges.*

Mammoth Yellow Belgian. Buc Roc. For similar names see *Belgian.*

Market Gardener. DD. For similar names see *Livingston's Early Market.*

Mastodon. Alr Ber Cox *Ham* Hrs LB May Mrs NK Sal Vau.

Similar names. White Mastodon, Lilly, Bogardus & Co.'s Mastodon, Northrup, King & Co.'s Mastodon.

Maud. Ham.

Similar names. Hammond's Maud.

Maule's Danvers, Maule's Improved Long Orange. Entered as *Danvers* and *Long Orange.*

Michael's Oxheart. Entered as *Oxheart.*

Midseasons. *Ham.*

Midsummer. Sal.

Similar names. Salzer's Midsummer.

Mills' Agricultural Wonder, Mills' Danvers, Mills' Giant Short White, Mills' Improved Long Orange. Entered as *Agricultural Wonder, Danvers, Giant Short White,* and *Long Orange.*

Milverton White. *Ewg.*

Milwaukee Market. Cur. For similar names see *Livingston's Early Market.*

Model. Alr Bng Bur Brw Dlw DD GN Mns M&S Pac Roc Sie.

Similar names. Pearce's Scarlet Model.

Seedsmen's synonyms. *Chantenay,* Alr Brw Bur Frd GN Pac, etc. *Perfection Rubicon,* M&S.

Nantes. Dlw Kos Lam Lan *Put Thm.*

Similar names. Nantes Stump-Rooted, Scarlet Nantes, Half Long Scarlet Nantes, Half Long Scarlet Stump-Rooted Nantes, Early Half Long Scarlet Nantes, Half Long Nantes, Early Half Long Nantes, Half Long Stump-Rooted Nantes, Half Long Red Nantes, Half Long Red Stump-Rooted Nantes, Long Nantes, Long Nantes Stump-Rooted.

Nantes Stump-Rooted. Brk. For similar names see *Nantes.*

New York Market. Bkt Hen W&D.

Similar names. See *Livingston's Early Market.*

Nichols' Improved Long Orange, Nichols' Long Orange. Entered as *Long Orange.*

Norman Belgian. Sal. For similar names see *Belgian.*

Northrup, King & Co.'s Mastodon, Northrup, King & Co.'s Victoria. Entered as *Mastodon* and *Victoria.*

Ontario Champion. Gra. For similar names see *Champion Feeder.*

Orange. Bel *Rtk.* For similar names see *Long Orange.*

Orange Belgian. Brn Ren Sim SB Tat Vk. For similar names see *Belgian.*

Seedsmen's synonyms. *Long Orange,* McK Ren. *Long Yellow,* SB.

Orange Danvers. Alr Bdg Gls TG MWJ K&W Lan Pks Tem.

Similar names. See *Danvers.*

Orange Danvers Stump-Rooted. Grw Koe. For similar names see *Danvers.*

Orange Giant. D&H. For similar names see *Long Orange.*

Oxheart. Agn Alr Anb Bai Brd Brt Btl Bel Ber Brk Bdg Bgs Bri Brn Buc Brb Bur Brr C&J Cam CE Chl Cle C&B Col CF Cok Cox Crs Cur Dlw D&H DD D&C Drr Drw Drm Dun Eas Ebe Ebr Elt Emr RE Evr Ewg Fmr Fqr Fst Fer Fld Fle Frd Ger Gls Gdn GH Gra Gng GN Ggy G&T Grw TG Hns Hrm Hrn Hrs Hrv Hst Haw Hen Hbt Hly Hop Hse H&P Iow *MWJ* RHJ J&S J&M Jns Kei K&W Ken Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Mgd Man Mns Mau May JCM JMM McK Mic Mhl Mls MV M&S Mrs Neb NI NK OV Old Pac Pg Pks HP Pir Pne Pnt Ptt Poo Por Pot Pri Qkr Rtk Raw Ree Ree Roc Rs RP Sal S&R SC Shw Shm Sie Sim Sox Spf SB Stw S&H *S&W* Tat Tem Tex TB Thm AGT Til *Tpk* Trm T&B Vl Vau Vk Vin Wea Web W&D Wer Wll Wd Wdr WS Wyg Y&H.

Similar names. Early Oxheart, Michael's Oxheart, Oxheart Orange, Half Short Oxheart, White Oxheart.

Seedsmen's synonyms. *Early Gem*, McK Ren. *Guerande*, Bur Drr Fqr Fer Hen Lam, etc. *Half Long Guerande*, D&H Ewg Gra Hde J&S Por, etc. *Half Long Stump-Rooted Guerande*, Ggy. *Large Scarlet Stump-Rooted*, Ken.

Oxheart Guerande. Hlm. For similar names see *Guerande*, *Oxheart.*

Oxheart Orange. Bgs S&O. For similar names see *Oxheart.*

Seedsmen's synonyms. *Guerande*, Bgs S&O.

Paris Exposition. Thr.

Pearce's Half Long White. D&H. For similar names see *Intermediate.*

Pearce's Improved Half Long White. Entered as *Pearce's Half Long White.*

Pearce's Scarlet Model. D&H. For similar names see *Model.*

Seedsmen's synonyms. *Chantenay*, D&H.

Peer of All. D&H.

Perfect Forcing. Drr. For similar names see *French Forcing.*

Perfection Rubicon. M&S. For similar names see *Rubicon.*

Seedsmen's synonyms. *Model*, M&S.

Pointed Intermediate. Brn Ken. For similar names see *Intermediate.*

Point-Rooted Horn. Lan. For similar names see *Early Scarlet Horn.*

Pride of the Market. Blg. For similar names see *Livingston's Early Market.*

Prize Long Orange. Bui. For similar names see *Long Orange.*

Seedsmen's synonyms. *Buist's Improved*, Bui.

Red Coreless. Min.

Similar names. Long Red Coreless, Half Long Coreless.

Red Intermediate. Cle C&B Fst Liv Spf Wdr. For similar names see *Intermediate.*

Red Meaux. Bur Mrs. For similar names see *Long Meaux.*

Red Parisian Forcing. J&S. For similar names see *French Forcing.*

Red St. Valery. Evr GH Mau Mrs. For similar names see *St. Valery.*

Red Surry. Kei *McK* Ren. For similar names see *Surry.*

Seedsmen's synonyms. *Long Orange*, SB.

Rennie's Market Garden. Ren. For similar names see *Livingston's Early Market.*

Rubicon. Bri Drr Frd Hse H&P *JMM* Mrs Ree Rs S&O Tlh *Vl.*

Similar names. Early Rubicon, Improved Rubicon, Perfection Rubicon, Half Long Rubicon, Half Long Orange Rubicon.

St. James Half Long. Ebe. For similar names see *Half Long.*

St. Valery. Brd Bru Buc Bur Cur Drr Eie Gra Hst H&C J&S Lan Lnr Mns Pac JMP *Pnt* Pot Roc Stk Tem Thr Vk *Wat* W&D Wdr.

Similar names. St. Valery Half Long, St. Valery Half Long Scarlet, St. Valery Intermediate, Long Red St. Valery, Improved Long Red St. Valery, Red St. Valery.

Seedsmen's synonyms. *Intermediate*, Bur Cur H&C J&S Mns Tem, etc. *Long Orange*, Lan.

St. Valery Half Long. Ewg. For similar names see *St. Valery.*

St. Valery Half Long Scarlet. Bui. For similar names see *St. Valery.*

St. Valery Intermediate. Bkt. For similar names see *St. Valery.*

Salzer's Forcer. Sal. For similar names see *French Forcing.*

Scarlet Carentan. Bdg. For similar names see *Carentan.*

Scarlet Chantenay Stump-Rooted. Hde. For similar names see *Chantenay.*

Salzer's First of All, Salzer's French Forcing, Salzer's Improved Long Orange, Salzer's Midsummer. Entered as *First of All, French Forcing, Long Orange,* and *Midsummer*.

Scarlet Golden Ball. Bur Hbt. For similar names see *Golden Ball.*

Scarlet Horn. Brr Cox Cur Grw Mrs Sal Wea Wdr.

Similar names. See *Early Scarlet Horn.*

Scarlet Intermediate. *Bgg* Bgs Bru RE Mau McK Pks Ren Sim SB Wd WS.

Similar names. See *Intermediate.*

Scarlet Model. *D&H.*

Scarlet Nantes. Cox Mgd Mrs Sal. For similar names see *Nantes.*

Scarlet Perfection. Roc Shm.

Similar names. Shumway's Scarlet Perfection.

Scarlet Short Horn. Alx Cle NI. For similar names see *Early Scarlet Horn.*

Scarlet Stump-Rooted. S&R. For similar names see *Half Long Scarlet.*

Short Horn. Bui Bur Fmr Fst Ggy Hbt LB NK Pac.

Similar names. See *Early Scarlet Horn.*

Seedsmen's synonyms. *Early Scarlet Horn.* Bur Fst Fmr LB NK Pac Wdr. *French Forcing,* Bui.

Short Thick White. RHJ. For similar names see *Short White.*

Short White. Bow Buc Brb Bur *CE* Drr Fer Fle Ggy Gry Hrv Hop Hse Lam *Lur* Loh Mau Mrs Old Pg Pks Por Ren Ree Roc S&R AGT *Tth.*

Similar names. Improved Short White, Buckbee's Improved Short White, Ferry's Improved Short White, Simmers' Improved Giant Short White, Mills' Giant Short White, Improved Short Thick White, Short Thick White.

Short White Vosges. Ewg. For similar names see *Vosges.*

Shumway's American Beauty, Shumway's Early Market Favorite, Shumway's Scarlet Perfection. Entered as *American Beauty, Early Market Favorite,* and *Scarlet Perfection.*

Shumway's Red Intermediate. Shm. For similar names see *Intermediate.*

Simmers' Improved Giant Short White. Entered as *Giant Short White.*

Small French Forcing. Pir. For similar names see *French Forcing.*

Stump-Rooted. Hly.

Surry. Bdg Sim.

Similar names. Red Surry, Long Red Surry.

Seedsmen's synonyms. *Altringham,* Bdg. *Long Orange,* Bdg. *Long Scarlet,* Bdg.

Table Queen. May OV *Tpk.*

Vaughan's Danvers. Entered as *Danvers.*

Very Early Scarlet. Drm.

Seedsmen's synonyms. *Earliest Short Horn,* Drm. *Golden Ball,* Drm.

Very Early Short Horn Scarlet. Mhl Nol.

Seedsmen's synonyms. *French Forcing,* Mhl Nol.

Victoria. Alr Ber Buc Cox DD Fmr GH *Ham* Iow LB *May* Mrs NK Roc.

Similar names. Lilly, Bogardus & Co.'s Victoria, Northrup, King & Co.'s Victoria, Buckbee's Victoria, Yellow Victoria, Giant Victoria.

Vincent's Intermediate. Vin. For similar names see *Intermediate.*

Vosges. May OV *Tpk.*

Similar names. White Vosges, Short White Vosges, Giant Short White Vosges, Mammoth White Vosges, Giant White Vosges, Large White Vosges.

White Belgian. Anb Brd Ber Bru Bng C&J Cle DD Ewg Fqr Fld Gra Ham Hrv Hen *H&C* Hly Kei K&W Kg Lan Lnr LB Man Mic Mrs Nef Pir Pot Spf Vk W&D.

Similar names. See *Belgian.*

White Field. Grw TG.

Similar names. Cowboy Field.

White Giant. SB.

Seedsmen's synonyms. *White Vosges,* SB.

White Giant Green Top. Ewg Ptt.

White Green Top Orthe. D&H. For similar names see *Green Top Orthe.*

White Intermediate. *RHJ.*

White Mastodon. *Crs* TB. For similar names see *Mastodon.*

White Oxheart. RHJ. For similar names see *Oxheart.*

White Vosges. Cle Cox *RHJ* Kei Mgd M&S *Pnt* Shm Thr *Wat.*

Similar names. See *Vosges.*

Seedsmen's synonyms. *Giant,* SB.

Wood's Scarlet Intermediate. Entered as *Scarlet Intermediate.*

Yellow. Sim. For similar names see *Long Yellow Stump-Rooted.*

Yellow Belgian. C&B D&H Ewg Gra Ggy Hen Jns Kei Lnr LB Man May Mic Nef Pks RP Sie Trm *Wat* Web Wyg.

Similar names: See *Belgian.*

Yellow Danvers. Sal. For similar names see *Danvers.*

Yellow Giant. May. For similar names see *Long Yellow Stump-Rooted.*

Yellow Intermediate. Ewg *RHJ.* For similar names see *Intermediate.*

Yellow Victoria. TB Wlt. For similar names see *Victoria.*

CAULIFLOWER.

Abyssinian. Ewg.

Algiers. Bkt Bgs Bri Bui Bur Cle Drr Fst RHJ J&M J&S Lan *May* Mhl Mzy Raw *Sie* Stw Vau Vin W&D.

American Beauty. Chl. For similar names see *Beauty.*

American Late Beauty. M&S. For similar names see *Beauty.*

Autumnal Early Giant. LB. For similar names see *Autumn Giant.*

Autumnal Late Giant. Ggy Ptt. For similar names see *Autumn Giant.*

Autumn Giant. Bai Brd Bdg Bri Bru CE *Chl* RE Fmr Ger GH Gra Hns Ham *Hrn* Hst J&M Ken Kg Lnr Man Mau May NK Pac Sal Sim Spf Tat Thm Thr *Til* Vau Wer.

Similar names. Veitch's Autumn Giant, Autumnal Early Giant, Autumnal Late Giant.

Seedsmen's synonyms. *Italian,* Bdg. *Late Italian,* Sim.

Autumn King. Bru.

Barnard's Early Snowball. Entered as *Early Snowball.*

Beauty. Tat.

Similar names. American Beauty, American Late Beauty, Long Island Beauty, Price's Danish Beauty, Bell's White Beauty, Danish Beauty.

Beckert's Early Snowball. Entered as *Early Snowball.*

Bell's Early Surehead. Bel. For similar names see *Salzer's Surehead.*

Bell's White Beauty. Entered as *White Beauty.*

Berlin Dwarf. Ggy. For similar names see *Extra Early Dwarf.*

Best Early. D&C Hst MWJ.

Similar names. Burpee's Best Early, Sandahl's Best Early.

Best of All. D&H.

Blue Ribbon. Sal.

Similar names. Salzer's Blue Ribbon.

Breck's White Bouquet. Entered as *White Bouquet.*

Bruce's Early Dwarf Erfurt, Bruce's Autumn King. Entered as *Early Dwarf Erfurt* and *Autumn King.*

Buckbee's Early Favorite, Buckbee's Extra Early Chief. Entered as *Early Favorite* and *Extra Early Chief.*

Buist's Early Snowball. Entered as *Early Snowball.*

Burpee's Best Early. Bur Neb. For similar names see *Best Early.*

Burpee's Dry Weather. Entered as *Dry Weather.*

California Mammoth Market. J&M Thm. For similar names see *California Wonder.*

California Wonder. Cox Pac.

Similar names. Cox's California Wonder, California Mammoth Market.

Carrara Rock. Bdg Elt Kei W&D.

Carter's Defiance, Carter's Dwarf Mammoth. Entered as *Defiance* and *Dwarf Mammoth.*

Champion Erfurt. S&F.

Copenhagen. H&P J&S.

Similar names. Extra Early Copenhagen.

Seedsmen's synonyms. *Denmark*, J&S. *Dry Weather*, J&S.

Cox's California Wonder. Entered as *California Wonder.*

Danish Beauty. Pri.

Danish Drought-Resisting. Ren. For similar names see *Early Dwarf Danish.*

Danish Early Snowball. *Btl Gls.*

Danish Giant. Gra. For similar names see *Early Dwarf Danish.*

Danish Snowball. Btl Dlw Hns Kra *LB* Vau. For similar names see *Snowball.*

Seedsmen's synonyms. *Sandahl's Best Early*, Pug.

Darch & Hunter's Eureka. Entered as *Eureka.*

Defiance. Ggy.

Similar names. Carter's Defiance.

Demi-Dur. RE Kei Ren.

Similar names. Early Demi-Dur.

Seedsmen's synonyms. *Half Early*, Ren. *Nonpareil*, Ren.

Denmark. Brd C&B Ebr J&S Shw Thr.

Seedsmen's synonyms. *Copenhagen*, J&S. *Dry Weather*, J&S.

Dreer's Dwarf Erfurt, Dreer's Earliest Snowstorm. Entered as *Dwarf Erfurt* and *Earliest Snowstorm.*

Dry Weather. Bur Hbt *Mau McK Sim Wat.*

Similar names. Burpee's Dry Weather.

Seedsmen's synonyms. *Copenhagen*, J&S. *Denmark*, J&S.

Dutch. Bdg Crs Pac.

Similar names. Early Dutch, Large Late Dutch.

Dwarf Erfurt. CE *D&H* Drr Ggy Hrv JMM Mhl S&O Tat Tex.

Similar names. See *Early Dwarf Erfurt.*

Dwarf Erfurt Small-Leaved. Bgs. For similar names see *Early Dwarf Erfurt.*

Dwarf Mammoth. K&W.

Similar names. Carter's Dwarf Mammoth.

Earliest Dwarf Erfurt. Brd Brk Bgs Chl Crs DD Emr Fqr Gry Hrs LB Mau JCM JMM Pnt Ren SC *Tem* Vau Vk Vin W&D Wea.

Similar names. See *Early Dwarf Erfurt.*

Earliest Erfurt. Lnr. For similar names see *Early Dwarf Erfurt.*

Earliest Snowball. *Alr* Fst SB *Wer* Wd WS. For similar names see *Snowball.*

Earliest Snowstorm. Drr Mhl M&S. For similar names see *Snowstorm.*

Early Alabaster. J&S M&S.

Similar names. Improved Early Alabaster.

Early Boston. Fax.

Similar names. Faxon's Early Boston.

Early Demi-Dur. Sim. For similar names see *Demi-Dur.*

Seedsmen's synonyms. *Half Early Paris*, Sim.

Early Dutch. Ggy Ren. For similar names see *Dutch.*

Seedsmen's synonyms. *Early London*, Bdg Crs. *Favorite*, Ren.

Early Dwarf Danish. Brk Fqr Gry S&F.

Similar names. Extra Early Danish, Danish Drought-Resisting, Large Danish, Danish Giant.

Seedsmen's synonyms. *Sea Foam*, S&F.

Early Dwarf Erfurt. Alr Bel *Bow* Bru Bui Bur CE Cle Col CA Del Drr Eic RE Ewg Ger GH Gng G&T Hrs Lan Man *May* McM Mls M&S Neb Nef NI Pac Pks JMP Pne Pri Qkr Rce Sal SC S&F Sie Sim Til T&B W&D.

Similar names. Improved Early Dwarf Erfurt, Large Early Dwarf Erfurt, Early Dwarf Erfurt Small Leaved, Bruce's Early Dwarf Erfurt, Ewing's Early Dwarf Erfurt, Simmers' Early Dwarf Erfurt, Extra Early Dwarf Erfurt, Gilt Edge Extra Early Dwarf Erfurt, Ford's Extra Early Dwarf Erfurt, Rawson's Extra Early Dwarf Erfurt, Earliest Dwarf Erfurt, Farquhar's Earliest Dwarf Erfurt, Lilly, Bogardus & Co.'s Earliest Dwarf Erfurt, McCullough's Earliest Dwarf Erfurt, Plant Seed Co.'s Earliest Dwarf Erfurt, Rennie's Earliest Dwarf Erfurt, Vaughan's Earliest Dwarf Erfurt, Weaver's Earliest Dwarf Erfurt, Dwarf Erfurt, Dwarf Erfurt Small Leaved, Kronk's Perfection Dwarf Erfurt, Dreer's Dwarf Erfurt, Extra Early Erfurt, Extra Early Erfurt Forcing, Early Erfurt, Leonard's Earliest Erfurt, Large Early Erfurt, Large Erfurt, Small Leaved Erfurt, Michell's Erfurt, Fottler's Champion Erfurt, Late Erfurt Market, Second Erfurt, German Erfurt, Champion Erfurt, Perfection Dwarf Erfurt.

Seedsmen's synonyms. *Snowball*, Eic.

Early Dwarf Erfurt Small-Leaved. Pnt.

Similar names. See *Early Dwarf Erfurt.*

Early Dwarf Snowball. Bdg. For similar names see *Snowball.*

Early Erfurt. Bou Bgg Bng *Eic Ewg* Fer Gra Ggy Hnt RHJ *K&F* Loh NK Por Pug S&R SB Til Tpk Wat.

Similar names. See *Early Dwarf Erfurt.*

Early Favorite. Bow Buc Brb *CE* Fer Frd Hlm Lam Mls Pne Rce Roc Shm Til.

Similar names. Buckbee's Early Favorite, La Crosse Early Favorite, Mills' Early Favorite, Shumway's Early Favorite, Improved Early Favorite, Gardener's Favorite, Favorite.

Early Gilt-Edge Snowball. Bri J&S. For similar names see *Snowball.*

Early Italian Giant. Eic Ggy. For similar names see *Italian.*

Early London. Bai Bow Brk Bdg Cle C&B Crs Elt Ewg Fer GH Hly Hen RHJ LB Man Mau *May* Mzy Pac Pks Pnt Ptt Pug *Rce* S&O Shm Sox Tat Thr T&B Vin.

Similar names. Early London Market, Extra Early London.

Seedsmen's synonyms. *Early Dutch*, Crs Bdg.

Early London Market. Ggy. For similar names see *Early London.*

Early Padilla. Fmr Ggy AGT.

Early Paris. Alx Alr Bai Btl Bow Bgg Bgs Bng Cox Cur CA Eas Elt Emr Evr Fer GH Gng Ggy Gry G&T Grw Hns Hrs Hnt Iow *RHJ* Ken *Kos LB* May JCM JMM NI Pks Pnt Ptt Por Raw Sal S&R SC Shm SB Stw S&H S&W Thm Trm Vk Wea Web W&D.

Similar names. Early Paris White, Early Paris Forcing, Extra Early Paris, Extra Early Paris White, Extra Early Paris Forcing, Extra Early Dwarf Paris, Half Extra Paris, Improved Early Paris.

Seedsmen's synonyms. *Nonpareil*, Fer SB Vk Wea.

Early Paris Forcing. S&O. For similar names see *Early Paris.*

Early Paris White. Cam Tat. For similar names see *Early Paris.*

Early Snowball. Alr Anb Ar Bai Bak Brd Brt Bkt Bel Ber Blg Bow Bgg Brk Bru Bng Bue Bui *LB* Brb Bur Brr Brw CE Cle C&B Col CF Cok Cox Crs Cur CA Dlw D&H Del Drr Drw Dun Ebr *Eic* Elt Evr *Ewg* Fmr Fer Fld Fle Frd Ger Gls Gdn GH Gng Ggy Gry Gfg Grw TG Ham Hde Hrm Hrn Hrv Hst Haw Hen H&C Hly Hlm Hop Hnt H&P Iml Iow Jac Jer MWJ RHJ J&M *Jns* Kei K&W Kg Koe Kos Lam Lan Lea LB Liv JL Loh Mnd Mgd PM Mns Mas Mau *May* JCM JMM McK Mel Mic Mhl Mls MV Mzy Neb Nef Nol OV Old Pac Pg Pks JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pug Qkr *Rtk* Raw Ren Ree Rim Roe Rt Rs RP S&R SC S&B Shw S&O Sie Sim Sox Stw S&H S&W Tex TB Thm Thb AGT *Tlh* Til *Tpk* Trm T&B Vl Vk Vin Wat Wea Web W&D Wer Wdr Wyg Yng Y&H.

Similar names. See *Snowball.*

Early Snowball Forcing. May. For similar names see *Snowball.*

Early Snow Cap. *McK.*

Early Whitehead. SB.

Ebeling's Dwarf. Ebe. For similar names see *Extra Early Dwarf.*

Ebeling's Snowball. Entered as *Snowball.*

Eichling's Improved Large Algiers, Eichling's Snowball. Entered as *Large Algiers* and *Snowball.*

Eureka. *D&H.*

Ewing's Early Dwarf Erfurt. Entered as *Early Dwarf Erfurt.*

Extra Early. Vau.

Extra Early Chief. Buc Roc.

Similar names. Buckbee's Extra Early Chief.

Extra Early Copenhagen. *Cam* Lan. For similar names see *Copenhagen.*

Extra Early Danish. May. For similar names see *Early Dwarf Danish.*

Extra Early Danish Snowball. Sal. For similar names see *Snowball.*

Extra Early Dwarf. Bai.

Similar names. Wernich's Earliest Dwarf, Haage's Dwarf Early, Berlin Dwarf, Ebeling's Dwarf.

Extra Early Dwarf Erfurt. Anb Ar Bai *Btl* Ber Blg Bou Bdg Bng Buc Bui Bur Brw C&J C&B Cox Cur CA Dlw DD D&C Drm Eas Elt RE Evr Ewg Fmr Fst Fer Fle Frd Gls GH Gra Ggy Grw TG Ham Hrm Hrn Hst Hly Hen Hlm Hse H&P Iow J&S Kei Ken Kos Lam Liv JL Loh Mnd Mns Mas McK MV Mzy Neb Nol NK OV Old HP Pir Prn Ptt Por Pri Raw Roc S&R Shw Sox SB Stw S&H S&W Tat Thr AGT *Tpk* Wat Wd Wdr WS Yng Y&H.

Similar names. See *Early Dwarf Erfurt.*

Extra Early Dwarf Paris. SB. For similar names see *Early Paris.*

Extra Early Erfurt. Alx Brd Brt Btl Bkt Bri Brr Cam *RE* Hns J&M K&W Lam *LB* May Ree Shm TB Thm Trm.

Similar names. See *Early Dwarf Erfurt.*

Extra Early Erfurt Forcing. May. For similar names see *Early Dwarf Erfurt.*

Extra Early London. Wer. For similar names see *Early London.*

Extra Early Paris. Anb Brd Bkt Brk Bdg Bri Bru Buc Bui Bur Cle C&B Crs Cur CA D&H DD *Eic* RE Ewg Fmr Fer Frd Ger Gls Gdn Gra Gfg Ham *Hrn* Hly Hen Hlm *MWJ* RHJ J&S Kei Kos Lam Lan Lnr Mgd Mas Mau *May* McM Min Mzy Pac HP JMP Poo Ree Ren Roc Rs RP Spf Tem Thr Tpk T&B Vau Vin Wll Yng.

Similar names. See *Early Paris.*

Extra Early Paris Forcing. *CE* Mls Ree. For similar names see *Early Paris.*

Extra Early Paris White. Hst. For similar names see *Early Paris.*

Extra Early Snowball. Alx *Cox* DD RE Man Por S&R Shm Thr.

Similar names. See *Snowball.*

Farquhar's Earliest Dwarf Erfurt. Entered as *Earliest Dwarf Erfurt.*

Faust's Earliest Snowball. Entered as *Earliest Snowball.*

Favorite. Evr.

Seedsmen's synonyms. *Early Dutch*, Ren.

Faxon's Early Boston. Entered as *Early Boston.*

First and Best. W&D.

First Crop. Mhl.

Similar names. Sutton's First Crop.

Ford's Extra Early Dwarf Erfurt. Entered as *Extra Early Dwarf Erfurt.*

Fottler's Champion Erfurt. Entered as *Champion Erfurt.*

Gardener's Favorite. Entered as *Favorite.*

German Erfurt. D&H. For similar names see *Early Dwarf Erfurt.*

Giant White Pearl. D&H.

Gilt-Edge. Poo Wea.

Similar names. Thorburn's Gilt-Edge, Simmers' Gilt-Edge.

Gilt-Edge Extra Early Dwarf Erfurt. M&S.

Similar names. See *Early Dwarf Erfurt.*

Gilt-Edge Snowball. G&T Hst H&P Lea HP Shw Vin.

Similar names. See *Snowball.*

Haage's Dwarf Early. Dlw. For similar names see *Extra Early Dwarf.*

Half Early. McK Ren. For similar names see *Half Early Paris.*

Seedsmen's synonyms. *Demi Dur*, Ren. *Nonpareil*, McK Ren.

Half Early French. Lan. For similar names see *Half Early Paris.*

Half Early Large French. GH. For similar names see *Half Early Paris.*

Half Early Paris. *Bow* Bru Bui C&J *CE* Cle C&B Col Cox Crs Drr Drm Ebe Eic Elt Ewg GH Gra TG Hen RHJ Kei Lan Liv MV *Pac* Prn Ree Rs Sim Sox T&B Vau Wat *Wea* W&D.

Similar names. Half Early Paris Nonpareil, Half Early French, Half Early Large French, Half Early.

Seedsmen's synonyms. *Early Demi-Dur*, Sim. *Nonpareil*, Bri Bui Hen Liv MV W&D, etc.

Half Early Paris Nonpareil. Bdg Bri. For similar names see *Half Early Paris.*

Half Extra Paris. Bou. For similar names see *Early Paris.*

Henderson's Early Snowball, Henderson's Extra Early Snowball, Henderson's Snowball. Entered as *Early Snowball*, *Extra Early Snowball*, and *Snowball.*

Holmes' Improved Early Snowball. Entered as *Early Snowball.*

Hot Weather. *Sie.*

Ideal. Vk.

Similar names. Vick's Ideal.

Italian. Bdg.

Similar names. Late Italian, Large Late Italian Giant, Early Italian Giant.

Seedsmen's synonyms. *Autumn Giant*, Bdg.

Italian Giant Early Surehead. M&S.

Similar names. See *Salzer's Surehead.*

Imperial. Gfg Lan Pne.

Improved Earliest Snowstorm, Improved Early Alabaster, Improved Early Dwarf Erfurt, Improved Early Favorite, Improved Early Paris, Improved Early Snowball, Improved Snowball, Improved Algiers. Entered as *Earliest Snowstorm*, *Early Alabaster*, etc.

Kronk's Perfection Dwarf Erfurt. Entered as *Perfection Dwarf Erfurt.*

La Crosse Early Favorite. Sal. For similar names see *Early Favorite.*

Landreth's Early Snowball. Entered as *Early Snowball.*

Landreth's Reliable. Lan.

Large Algiers. Bow Bdg Bng C&J Crs Eic Elt Fer Ger Gls Hrs *Lur* Mnd Neb Nol NI Pac Pks Pug Thr.

Similar names. Large Algiers, Late Algiers, Large Late Algiers, Improved Algiers, Eichling's Improved Large Algiers. See also *Algiers.*

Large Danish. DD. For similar names see *Early Dwarf Danish.*

Large Early Dwarf Erfurt. MV Mzy *Sox* Thr.

Similar names. See *Early Dwarf Erfurt.*

Large Early Erfurt. GH JMM Vau Wll.

Similar names. See *Early Dwarf Erfurt.*

Large Erfurt. Bai Brd *Mic* Old. For similar names see *Early Dwarf Erfurt.*

Large French. Bai.

Large Late Algiers. Bai *CE* C&B DD Frd *Gls* GH Hrm Hst Hen Hop *Lam* Liv Loh Man Mic HP Poo Por Ree S&R Sim Vk Y&H.

Similar names. See *Algiers.*

Large Late Asiatic. Cox SC.

Large Late Dutch. Lan. For similar names see *Dutch.*

Large Late Italian Giant. Eic. For similar names see *Italian.*

Large Late Le Normand. Shm Sim. For similar names see *Le Normand.*

Large Late Stadtholder. Bdg.

Large Late Walcheren. Shm. For similar names see *Walcheren.*

Large Le Normand Short Stem. Hrs SB. For similar names see *Le Normand.*

Large Walcheren. Bru. For similar names see *Walcheren.*

Late Algiers. Drw Ggy Sox. For similar names see *Algiers.*

Late Erfurt Market. Sim. For similar names see *Early Dwarf Erfurt.*

Late Italian. Sim. For similar names see *Italian.*

Seedsmen's synonyms. *Autumn Giant*, Sim.

Late Utrecht. Tat.

Le Normand. Ewg Iow Lan JCM *McK* Trm.

Similar names. Le Normand's Short Stem, Le Normand's Mammoth, Le Normand's Short Stem Mammoth, Large Le Normand's Short Stem, Large Late Le Normand.

Le Normand's Mammoth. D&H. For similar names see *Le Normand.*

Le Normand's Short Stem. Alr Bai Btl Bkt *Bel* Bow Brk Bdg Bgs Bri Bru Buc Bui Bur C&J *CE* Cle C&B Col Cox Crs Cur D&H Drr Drm Eic Elt Emr RE Fst Fer Fle Frd *Gls* GH Gra Gng Gry *TG* Hns Hst Hen Hlm RHJ J&M J&S *Kei* Ken Kos *LB* Lnr Mnd May JMM Mzy Neb *Pac* Pks JMP Prn Ren Ree Roc S&F S&O S&H Thm Thr *Tlh* Til T&B Vau Vk Vin Wea W&D Y&H.

Similar names. . See *Le Normand.*

Seedsmen's synonyms. *Carter's Extra Dwarf Mammoth*, Bdg.

Le Normand's Short Stem Mammoth. Ger Ggy Pac Ptt Wdr.

Similar names. See *Le Normand.*

Leonard's Earliest Erfurt. Entered as *Earliest Erfurt.*

Leonard's Short Stem. Mhl Min.

Lilly, Bogardus & Co.'s Earliest Dwarf Erfurt. Entered as *Earliest Dwarf Erfurt.*

Livingston's Earliest. Liv JL. For similar names see *Extra Early.*

Long Island Beauty. Ggy. For similar names see *Beauty.*

McCullough's Earliest Dwarf Erfurt. Entered as *Earliest Dwarf Erfurt.*

McKenzie's Early Snow Cap. Entered as *Early Snow Cap.*

Mammoth Autumn Snow White. Joo.

Similar names. Van Namen's Mammoth Autumn Snow White.

Matador. *Sie.*

Maule's Prize Earliest. Entered as *Prize Earliest.*

Michell's Erfurt. Entered as *Erfurt.*

Midsummer. Sal.

Similar names. Salzer's Midsummer.

Mills' Early Favorite. Entered as *Early Favorite.*

Model. GH NK.

Moore & Simon's Italian Giant Early Surehead. Entered as *Italian Giant Early Surehead.*

Mount Blanc. Bui. Koe.

Midsummer. Sal.

Noll's Extra Early. Nol. For similar names see *Extra Early.*

Similar names. Noll's Extra Early, Livingston's Earliest, Maule's Prize Earliest.

Nonpareil. Bui *CE* C&B Cox Fer *Gls* GH Hen Liv McK MV *Pac* Prn Pri Ren Ree Shm Sox SB Tat *Thr* T&B Vk Wea W&D.

Seedsmen's synonyms. *Demi-Dur*, Ren. *Early Paris*, Fer SB Vk Wea. *Half Early*, McK Ren. *Half Early Paris*, Bri Bui Cox Hen Liv MV T&B, etc.

Northern Early Snowball. GN. For similar names see *Snowball.*

Padilla. *Tll.*

Perfection Dwarf Erfurt. Fqr.

Plant Seed Co.'s Earliest Dwarf Erfurt. Entered as *Earliest Dwarf Erfurt.*

Price's Danish Beauty. Entered as *Danish Beauty.*

Prize Earliest. Mau.

Similar names. Maule's Prize Earliest.

Queen of the Danes. *Ewg.*

Rawson's Extra Early Dwarf Erfurt, Rawson's Sea Foam. Entered as *Extra Early Dwarf Erfurt* and *Sea Foam.*

Rennie's Earliest Dwarf Erfurt. Entered as *Earliest Dwarf Erfurt.*

Salzer's Blue Ribbon, Salzer's Midsummer. Entered as *Blue Ribbon* and *Midsummer.*

Salzer's Surehead. Sal.

Similar names. - Bell's Early Surehead, Moore & Simon's Italian Giant Early Surehead, Italian Giant Early Surehead.

Sandahl's Best Early. Pug. For similar names see *Best Early.*

Seedsmen's synonyms. *Danish Snowball*, Pug.

San Francisco Market. Bai.

Sea Foam. Raw.

Similar names. Rawson's Sea Foam.

Seedsmen's synonyms. *Early Dwarf Danish*, S&F.

Second Erfurt. Vau. For similar names see *Early Dwarf Erfurt.*

Shumway's Early Favorite. Entered as *Early Favorite.*

Simmers' Early Dwarf Erfurt. Entered as *Early Dwarf Erfurt.*

Simmers' Gilt-Edge. Sim. For similar names see *Gilt-Edge.*

Small-Leaved Erfurt. Spf. For similar names see *Early Dwarf Erfurt.*

Snowball. Bou Bgs Brn Cam Chl Eas Ebe Eic Emr Fqr Gra Hrs Hbt Hlm Jns Ken Lam Lan Lnr McM NI NK HP Pri Ree Sal S&F Spf Tat Tem Tpk Vau.

Similar names. Ebeling's Snowball, Eichling's Snowball, Henderson's Snowball, Danish Snowball, Extra Early Danish Snowball, Early Snowball, Early Snowball Forcing, Barnard's Early Snowball, Beckert's Early Snowball, Buist's Early Snowball, Henderson's Early Snowball, Landreth's Early Snowball, Weaver's Early Snowball, Earliest Snowball, Faust's Earliest Snowball, Wood's Earliest Snowball, Extra Early Snowball, Thorburn's Extra Early Snowball, Henderson's Extra Early Snowball, Improved Snowball, Improved Early Snowball, Holmes' Improved Early Snowball, Gilt-Edge Snowball, Early Gilt-Edge Snowball, World's Best Snowball, Northern Early Snowball, Early Dwarf Snowball.

Seedsmen's synonyms. *Early Dwarf Erfurt*, Eic.

Snowstorm. May.

Similar names. Earliest Snowstorm, Dreer's Earliest Snowstorm, Improved Earliest Snowstorm.

Steele-Brigg's Extra Early Whitehead. Entered as *Extra Early Whitehead.*

Steele's Whitehead. Entered as *Whitehead.*

Sutton's First Crop. Entered as *First Crop.*

Thorburn's Extra Early Snowball. Entered as *Extra Early Snowball.*

Thorburn's Gilt-Edge. Brt Ebr Ggy Thr. For similar names see *Gilt-Edge.*

Thorburn's Large Early. Thr.

Van Namen's Mammoth Autumn Snow White. Entered as *Mammoth Autumn Snow White.*

Vaughan's Earliest Dwarf Erfurt. Entered as *Earliest Dwarf Erfurt.*

Veitch's Autumn Giant. Brt Btl Bkt Brk Bui Bur *CE* Cle C&B CF Cox Crs D&H Drr Elt Emr Fqr Fst Fer Gng Gry Hlm Hen RHJ J&S Kei Lan *LB* Liv Mns JMM Mhl Neb Nol *Pac* Pg Pks Poo Por Qkr Ree Ree S&R Shm SB Tat Tem AGT Til T&B Vk Wat Wea Wd Wdr.

Similar names. See *Autumn Giant.*

Vick's Ideal. Entered as *Ideal.*

Walcheren. Bai Bel Bui Fmr GH Hrs NK Pac Ren Thr W&D.

Similar names. Walcheren White, Large Walcheren, Large Late Walcheren.

Walcheren White. SB. For similar names see *Walcheren.*

Weaver's Earliest Dwarf Erfurt, Weaver's Early Snowball. Entered as *Earliest Dwarf Erfurt* and *Early Snowball.*

Wernich's Earliest Dwarf. Wer. For similar names see *Extra Early Dwarf.*

White Beauty. Bel.

Similar names. Bell's White Beauty.

White Bouquet. Brk.

Similar names. Breck's White Bouquet.

White Excelsior. Pg.

Whitehead. Gng.

Similar names. Steele's Whitehead, Steele-Briggs' Extra Early Whitehead, Early Whitehead, Extra Early Whitehead.

Wood's Earliest Snowball. Entered as *Earliest Snowball.*

World Beater. Del Gra.

World's Best Snowball. McK Ren. For similar names see *Snowball.*

CELERIAC.

(Also called Turnip Rooted Celery and German Celery.)

Celeriac. Alx Ar Bai Bak Brd Btl Bel Bow Brk Bdg Bgs Bru Bru Buc Bui Bur Brr CE Col CF Cox Del Eas Ebr Eic Elt Emr Evr Ewg Fst Fer Ger Gls Gra GN Grw Hns Hde Hrv Hst Hlm H&P Iow RHJ J&M Lan Lnr LB JL Mgd JCM JMM Mau Mic Mhl Min MV Mzy Nef Pac Pks HP Prn Ptt Por Pot Pug Roe Rs Sal S&R Shw S&O Sox Stk Tat Tem Tex TB Thr AGT Til Trm T&B Vl Vk Vin Wea Web Wll Wd Wdr WS.

Apple-Shaped. Brd Bri Bng Bur C&J *CE* Dlw DD Drr Ebe Fmr Frd GH G&T J&M Kos Liv Lnr Mau May JMM M&S Mzy Nol Pnt Raw Ren Ree Thr W&D.

Barnard's Giant. Brd.

Similar names. Thorburn's Giant.

Early Erfurt. Bdg. For similar names see *Large Erfurt.*

Erfurt. Kos Pnt Thr. For similar names see *Large Erfurt.*

Extra Large Erfurt. Brd. For similar names see *Large Erfurt.*

Giant. Bgs Chl.

Seedsmen's synonyms. *Large Smooth Prague,* Bgs.

Giant Erfurt. Dlw Fqr Hen Sim. For similar names see *Large Erfurt.*

Giant Prague. Bkt Bri CE DD LB JL Mas HP *Pnt* Pri *Sie* Vau.

Similar names. See *Large Smooth Prague.*

Giant Smooth Prague. Drr Liv Mrs *Por S&R.*

Similar names. See *Large Smooth Prague.*

Large Early Erfurt. *CE* Hrs Rce Sie. For similar names see *Large Erfurt.*

Improved. Gry.

Improved Erfurt, Improved Large Paris, Improved Paris. Entered as *Erfurt, Large Paris,* and *Paris.*

Large Erfurt. Cle Cur DD Fmr Frd Ken JMM May NK Spf W&D Wer.

Similar names. Extra Large Erfurt, Large Early Erfurt, Early Erfurt, Large White Erfurt, Giant Erfurt, Improved Erfurt.

Large Paris. DD. For similar names see *Large Smooth Paris.*

Large Prague. Iml Pir Ptt. For similar names see *Large Smooth Prague.*

Large Smooth. Mns.

Large Smooth Paris. Ken Raw.

Similar names. Improved Large Paris, Improved Paris.

Large Smooth Prague. Brd Blg Bgs Bng Buc *CE* C&B Crs Cur Dlw D&H RE Fer GH G&T TG Hrn Hen J&S Ken Koe Kos Lam Lnr *Mns* MV Nol Poo Raw Rce Roc Sox SB S&W Til Vk W&D Wer.

Similar names. Large Prague, Smooth Prague, Prague, Giant Prague, Giant Smooth Prague.

Seedsmen's synonyms. *Giant Turnip Rooted,* Bgs.

Large White Erfurt. SC. For similar names see *Large Erfurt.*

Ne Plus Ultra. M&S.

Paris. C&J. For similar names see *Large Smooth Paris.*

Prague. M&S Mzy. For similar names see *Large Smooth Prague.*

Smooth Prague. Jns Lnr. For similar names see *Large Smooth Prague.*

Thorburn's Giant. Thr. For similar names see *Barnard's Giant.*

CELERY.

Alexander's White Plume. Entered as *White Plume.*

American Triumph. *Tlh.*

American White Solid. Grw *May.* For similar names see *Giant White Solid.*

Beckert's Hardy Winter, Beckert's Perfection Winter, Beckert's Silver Spray. Entered as *Hardy Winter, Perfection Winter,* and *Silver Spray.*

Boston Market. Alx Anb Ar Bai Brd Brt Btl Bkt Ber Blg Bou Bow Brk Bdg Bgs Bri Brn Bui Brb Bur Brr C&J Cam CE *Chl* Cle C&B CF Cok Cox Crg Crs Cur CA Dlw DD Drr Drm Dun Eas Ebe Ebr Elt Emr Fmr Fqr Fax Fer Ger GH Gry G&T Grw TG Hrn Hrs Hrv Haw Hen Hlm Hop Hnt H&P Iml Iow RHJ J&S K&W Ken Kos Kra Lam Lan Lea Lnr LB Liv JL Man Mns Mas Mau May JCM JMM McM Mhl Min MV Mrs Mzy Nef Pac Pg HP JMP Prn Pnt Ptt Por Pot Pri Raw *Ren* Rce Roc Rs RP Sal S&R SC S&F Shw S&O Sox Spf Stw S&H S&W Tat Tem Til Tpk Vl Vk Vin Wat Wea Web W&D Wer Wdr Yng Y&H.

Similar names. Improved Boston Market, Dwarf Boston Market.

Breck's Christmas. Entered as *Christmas.*

Broad-Ribbed. M&S.

Broad-Ribbed Kalamazoo. CF *Cox* Evr GH Hrn H&P Pac JMP Ptt Pri.

Similar names. See *Kalamazoo.*

Bruce's Hamilton Red. Entered as *Hamilton Red.*

Buckbee's Golden Heart, Buckbee's Perfected Kalamazoo. Entered as *Golden Heart* and *Kalamazoo.*

Buist's Golden Market, Buist's Mammoth White Solid. Entered as *Golden Market* and *Mammoth White Solid.*

Burpee's Giant White Solid. Entered as *Giant White Solid.*

California Golden Self-Blanching. Vk.

Similar names. See *Golden Self-Blanching.*

Carter's Crimson. *Ren* S&F.

Similar names. Carter's Dwarf Crimson, Carter's Incomparable Dwarf Crimson, Incomparable Dwarf Crimson, Dwarf Crimson, Crimson.

Carter's Dwarf Crimson. Brk Fqr Ger *McK* Ren.

Similar names. See *Carter's Crimson.*

Carter's Incomparable Dwarf Crimson. Kei Sim.

Similar names. See *Carter's Crimson.*

Cooper's Branching. Mhl. For similar names see *Cooper's Cutting.*

Seedsmen's synonyms. *Cooper's Improved Cutting,* Mhl.

Cooper's Cutting. Mhl Mrs Thr.

Similar names. Cooper's Improved Cutting, Cooper's Improved Branching, Cutting, Cooper's Branching.

Seedsmen's synonyms. *Cooper's Improved Branching,* Mhl.

Cooper's Improved Branching, Cooper's Improved Cutting. Entered as *Cooper's Branching* and *Cooper's Cutting.*

Covent Garden Red. S&W.

Similar names. Covent Garden Rose.

Covent Garden Rose. Mzy. For similar names see *Covent Garden Red.*

Crawford's Half Dwarf. Brd *Bgg* Brn Bur C&J *CE* Cle Cox Dlw Drm Elt Evr Fer GH Ggy TG H&P Iml J&S Kos Lam Lnr LB Man Mau May Mhl MV Mzy Nef Nol NI HP Ptt Pri Ren Rce Roc Sal S&F Shm *Sox* S&W Tat Thr Til Vk Wer Wd WS Yng Y&H.

Similar names. See *Half Dwarf.*

Seedsmen's synonyms. *Golden Heart,* Elt Thr. *Henderson's Half Dwarf,* J&S.

Christmas. Brk.

Similar names. Breck's Christmas.

Cremona. *J&S.*

Crimson. Sal. For similar names see *Carter's Crimson.*

Cutting. Buc Fer Wdr. For similar names see *Cooper's Cutting.*

Seedsmen's synonyms. *Soup,* Fer. *Smallage,* Wdr.

Dobbie's Invincible White. Ewg Thr.

Dobbie's Red. Ewg. For similar names see *Red.*

Dreer's Monarch. Entered as *Monarch.*

Dwarf Boston Market. Ewg Gra Mnd Shm. For similar names see *Boston Market.*

Dwarf Crimson. Gry Hrv Man. For similar names see *Carter's Crimson.*

Seedsmen's synonyms. *Early Dwarf Red,* Bdg. *Rose Colored,* Bdg.

Dwarf Golden Heart. Ar Brd Bow Bgs Brn Bru Bui Bur Brr *CE* Col *CF Cox* Del DD *Evr* Fmr Fst Frd Ger Gls GH TG *Ham* Hrn Hlm Iml J&M Jns Kra LB Liv PM *Mau* JCM JMM McK Mhl Mls Min MV NK Old *Pac* HP JMP Pnt Pug Qkr Ren Rce *Rim* Rt RP Sal S&B Shm Sie Spf S&H Tex Thm AGT Trm T&B Vk Wat Wea Web Wdr Wyg Yng.

Similar names. See *Golden Heart.*

Dwarf Golden Self-Blanching. *CE* Hse J&M Nef Rce S&O.

Similar names. See *Golden Self-Blanching.*

Dwarf Large-Ribbed. *Bur* Eic Ewg Gra Mau JMP Stk.

Similar names. See *Dwarf White.*

Dwarf Rose. Drr Mnd JMM SB. For similar names see *Rose.*

Dwarf White. Anb Btl Bou Drr Hns Hnt Mnd Stw Trm W&D.

Similar names. Henderson's Dwarf White, Henderson's Dwarf, Simmers' Dwarf White Winter, Improved Dwarf White, Dwarf Large Ribbed, Simmers' Large-Ribbed Dwarf White Winter, Incomparable Dwarf White, Early Dwarf White, Prince of Wales Dwarf White.

Dwarf White Golden Heart. Pri. For similar names see *Golden Heart.*

Dwarf White Kalamazoo. Til. For similar names see *Kalamazoo.*

Dwarf White Solid. Bow Brn Fer Gls Iml Liv Sal SB Thm.

Similar names. See *Giant White Solid.*

Seedsmen's synonyms. *Kalamazoo,* Fer Iml Lam. *Large-Ribbed Kalamazoo,* Fer.

Dwarf White Solid Kalamazoo. Bgs *CE* Loh Ree.

Similar names. See *Kalamazoo, Giant White Solid.*

Early Arlington. Drm Fqr Fax Gry Lnr.

Early Dwarf Red. Bdg. For similar names see *Red.*

Seedsmen's synonyms. *Dwarf Crimson,* Bdg. *Rose Colored,* Bdg.

Early Dwarf White. Bdg. For similar names see *Dwarf White.*

Seedsmen's synonyms. *Incomparable Dwarf,* Bdg.

Early White Plume. Bdg RE. For similar names see *White Plume.*

English White Solid. Pks. For similar names see *Giant White Solid.*

Eureka. Evr May.

Evans' Triumph. Entered as *Triumph.*

Far Superior. Mrs.

Far Superior Many Heart. *J&S Rim Vau.*

Fin de Siecle. Bdg Dlw Ebr Hlm J&S Lan Mhl Mzy Mrs Nol Rim Sie Thr W&D.

Similar names. Thorburn's Fin de Siecle.

French Dwarf. RE.

French Golden Self-Blanching. Blg Mns Nol.

Similar names. See *Golden Self-Blanching.*

French's Success. Hrs.

French White Solid. RHJ. For similar names see *Giant White Solid.*

Giant Dwarf Golden Heart. Sim. For similar names see *Golden Heart.*

Giant Golden Heart. Brd Blg Bri Brb Brw *Cam CE* Cur D&H Frd G&T Grw TG Haw J&S Kra Lnr LB Liv Mnd PM Mns Mau Mrs *Pg* Ree Sal *Shw* Shm Tem Vau Wdr.

Similar names. See *Golden Heart.*

Giant Pascal. Agn Alx Alr Anb Ar Bai Brd Brt Btl Bkt Bel Ber Blg Bow Brk Bdg Bgs Bri Brn Bng Buc Bur Brr Cam *CE* Chl Cle C&B Col CF Cok Cox Crs Cur Dlw D&H Del DD D&C Drr Drw Eas Ebe Ebr Eic Elt RE Evr Fmr Fqr Fst Fer Fle Frd Ger Gls Gdn GH Gra Gng Ggy Gry G&T Grw TG Hns Ham Hde Hrn Hrs Hrv Hst Hen Hbt *H&C* Hlm Hop Hse Hnt H&P Iml Iow Jac RHJ J&M J&S Jns Kei K&W Ken K&F Kg Kos Kra Lam Lan Lnr LB Liv JL *Lon* Mnd Mgd Man PM Mns Mas Mau May JCM JMM McK McM Mel Mic Mhl Mls MV Mrs Mzy Neb Nol NK OV Old Pac Pg Pks HP JMP Pir Prn Pnt Ptt Poo Por Pot Pri Qkr Raw Ree Ren Rce Rim Roc Rt Rs Sal S&R S&F Shw S&O Shm Sie Sim Sox Spf Stk SB Stw S&H S&W Tat Tem Tex Thm Thr *Tlh* Til *Tpk* Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wer Wd Wdr WS Yng Y&H.

Similar names. Giant White Pascal, Vilmorin's Giant Pascal, Improved Giant Pascal.

Seedsmen's synonyms. *Winter King,* May.

Giant Red. Raw Shm. For similar names see *Red.*

Giant White. Bng Ebe McK. For similar names see *Giant White Solid.*

Giant White Pascal. Bru Bui Ewg SC. For similar names see *Giant Pascal.*

Giant White Plume. Gdn Jac. For similar names see *White Plume.*

Giant White Solid. Alr Ar Brd Bur *CE* Cle CA Del Emr GH TG Haw Hen Hlm

Iml J&S K&F Lam LB Liv JCM JMM Min MV Mrs HP Prn Ptt Por Pri Qkr Ren Ree RP S&R Sox Spf Tem TB Trm Web W&D.

Similar names. Giant White, Rennie's Giant White, Seymour's Giant White, Burpee's Giant White Solid, Mammoth White Solid, Buist's Mammoth White Solid, Large White Solid, Improved Large White Solid, White Solid, Dwarf White Solid, Dwarf White Solid Kalamazoo, Goodwin's White Solid, Seymour's White Solid, American White Solid, English White Solid, French White Solid, Paris Market White Solid.

Seedsmen's synonyms. *Kalamazoo*, Ren.

Golden Dwarf. Bng Bui C&B CF Crs Cur CA Fer Gdn Iow J&S Kei Lam Lan Mnd Mrs Neb Pac Prn Raw Roc SB Stw *Vl* W&D Wd WS.

Similar names. Henderson's Golden Dwarf.

Seedsmen's synonyms. *Golden Heart*, Buc CA Crs Fer Lam WS, etc.

Golden Dwarf Self-Blanching. Nef.

Seedsmen's synonyms. *Golden Heart*, Nef.

Golden Half Dwarf. Drr. For similar names see *Half Dwarf*.

Golden Heart. Alr Anb Bai Btl Buc C&J CE Cle Cox Crs CA Eas Ebr Elt Evr Fst Fer Fle Gra GN Hns Hrs Hrv *Hlm* Hop Hnt H&P J&S Ken Kos Lam Lan Lea JL Loh Man Mns Mau May Mel Mzy Neb Nef NI OV Pir *Put* Por Pug Raw Rim Roc S&R S&F S&O SB Stw *S&W* Tat Til Thr *Tpk* Vl Vin Wd WS Y&H.

Similar names. Buckbee's Golden Heart, Vautier's Golden Heart, Improved Golden Heart, Moore & Simon's Matchless Giant Perfection Long-Keeping Golden Heart, Giant Golden Heart, Vaughan's Giant Golden Heart, Vautier's Giant Golden Heart, Dwarf Golden Heart, Henderson's Dwarf Golden Heart, Improved Dwarf Golden Heart, Giant Dwarf Golden Heart, Half Dwarf Golden Heart, Dwarf White Golden Heart.

Seedsmen's synonyms. *Crawford's Half Dwarf*, Elt Thr. *Golden Dwarf*, Crs CA Fer J&S Neb Wd, etc. *Golden Dwarf Self-Blanching*, Nef.

Golden Jewel. Y&H.

Golden Market. Bui.

Similar names. Buist's Golden Market.

Golden Rose. *Bkt* Bur Brr Col Crs *Gls Ggy* Liv JL Mns Mrs *Pg* W&D Wd WS.

Similar names. See *Rose*.

Seedsmen's synonyms. *Rose Ribbed Golden Self-Blanching*, Liv Mns. *Rose Ribbed Paris*, WdWS. *Rose Ribbed Self-Blanching*, Ggy J&S Mrs Tem.

Golden Rose Self-Blanching. *Brr* Drr Ger JMM.

Golden Self-Blanching. Alx Alr Anb Ar Bai Brd Brt Btl Bkt Bel Ber Bow Brk Bdg Bri Brn Bng Bui Bur Brr Cam CE Chl Cle C&B Col Cox Crs Cur Dlw D&H Del DD D&C Drr Drw Dun Ebr Eic Elt Emr Evr Fst Fax Fer Fld Fle Frd Ger Gdn GH Gra GN Gry *G&T* Grw TG Ham Hde Hrn Hrv Hst Hen Hbt H&C Hlm Hop Hnt H&P Iow Jac J&M J&S Jns K&W Kg Koe Kos Kra Lam Lan Lnr LB Liv JL Loh Lon Mnd Mgd Man PM Mas Mau *May* JCM JMM McK Mic Mhl Mls MV M&S Mrs Neb Nol NK *Pac* Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pri Pug Qkr Ree *Rim* Roc Rt Rs RP Sal S&R SC Shw Shm Sie Sox Spf Stk S&H S&W Tat Tem Tex Thm Thr *Thb Tlh* Til Trm T&B Vl Vau Wat Web W&D Wer Wll Wd Wdr WS Wyg Yng Y&H.

Similar names. Dwarf Golden Self-Blanching, California Golden Self-Blanching, French Golden Self-Blanching, Improved Golden Self-Blanching, Large Solid Golden Self-Blanching, Large-Stalked Golden Self-Blanching, Vilmorin's Golden Self-Blanching, Paris Golden Self-Blanching, Paris Dwarf Golden Self-Blanching, Paris Self-Blanching, Paris Golden Yellow, Paris Golden, McCullough's Paris Golden Yellow, Large Solid Golden Yellow, Paris Solid Golden Yellow, Golden Yellow Self-Blanching, Self-Blanching, Salzer's Self-Blanching.

SEEDSMEN'S SYNONYMS. *Golden Yellow Large Solid*, Buc Fer Lam Iml HP Loh, etc. *Paris Golden*, Mrs.

Golden Yellow Self-Blanching. Gls. For similar names see *Golden Self-Blanching.*

Goodwin's White Solid. Bgs. For similar names see *Giant White Solid.*

Half Dwarf. Bak Btl *Ber* C&B Emr Lan Mnd Mrs Prn RP Stw W&D.

SIMILAR NAMES. Crawford's Half Dwarf, Henderson's Half Dwarf, Henderson's Half Dwarf White, Half Dwarf White, Half Dwarf Solid, Half Dwarf Large Ribbed, Improved Half Dwarf, Golden Half Dwarf.

Half Dwarf Golden Heart. Bdg Ebe Ptt. For similar names see *Golden Heart.*

Half Dwarf Large-Ribbed. Eic. For similar names see *Half Dwarf.*

Half Dwarf Solid. Min. For similar names see *Half Dwarf.*

Half Dwarf White. Crs Eas. For similar names see *Half Dwarf.*

Hamilton Red. Bru. For similar names see *Red.*

Hamilton Rose. RE. For similar names see *Rose.*

Hammond's Improved White Plume. Entered as *White Plume.*

Hardy Winter. Bri.

SIMILAR NAMES. Beckert's Hardy Winter.

Henderson's Dwarf Golden Heart, Henderson's Perfected White Plume, Henderson's Pink Plume, Henderson's White Plume. Entered as *Dwarf Golden Heart, White Plume, Pink Plume*, and *White Plume.*

Henderson's Dwarf White. Gra Hen Lea NI VK.

SIMILAR NAMES. See *Dwarf White.*

Henderson's Golden Dwarf. Hen. For similar names see *Golden Dwarf.*

Henderson's Golden Rose. Hen. For similar names see *Rose.*

Henderson's Half Dwarf. Alr Anb Bgs Cle CF Cur TG Hns Hrn Hrv Hen Iow RHJ J&S K&W Man May Pir SC Shm Thb Trm.

SIMILAR NAMES. See *Half Dwarf.*

SEEDSMEN'S SYNONYMS. *Crawford's Half Dwarf*, J&S.

Henderson's Half Dwarf White. *CE* Fqr Ree. For similar names see *Half Dwarf.*

Henderson's Rose. Alr Hen *Kei* JMP Pir Shm. For similar names see *Rose.*

Holmes' White Plume. Entered as *White Plume.*

Incomparable Dwarf Crimson. *CE* Kos Ree.

SIMILAR NAMES. See *Carter's Crimson.*

Incomparable Dwarf Red. Tat. For similar names see *Red.*

Incomparable Dwarf White. Crs. For similar names see *Dwarf White.*

Imperial. Sim.

SIMILAR NAMES. Simmers' Imperial, Imperial Dwarf Large-Ribbed.

Imperial Dwarf Large-Ribbed. Bur.

Improved Boston Market, Improved Dwarf Golden Heart, Improved Dwarf White, Improved Giant Pascal, Improved Golden Heart, Improved Golden Self-Blanching, Improved Half Dwarf, Improved Large White Solid, Improved Pink Plume, Improved White Plume. Entered as *Boston Market, Dwarf Golden Heart, Dwarf White, Giant Pascal, Golden Heart, Golden Self-Blanching*, etc.

Johnson and Stokes' Cremona. Entered as *Cremona.*

Kalamazoo. Alr Anb Bai Ber Brn Buc *LB* Brr Crs D&H DD Ebe Fmr Fqr Frd Ger *Gra* Ggy Hlm *RHJ* Jns Kos Lam Lnr LB Liv *Mau* Mrs NK *Pnt* Por Pug Roc S&R S&O Shm Sox *S&W* Tem AGT Vl Vau Wea Wdr Wyg.

SIMILAR NAMES. Dwarf White Kalamazoo, Dwarf White Solid Kalamazoo, Buckbee's Perfected Kalamazoo, Large-Ribbed Kalamazoo, Broad-Ribbed Kalamazoo.

SEEDSMEN'S SYNONYMS. *Dwarf White Solid*, Fer Iml Lam. *Giant White Solid*, Ren. *Large-Ribbed Kalamazoo*, Fer. *Solid Ivory*, D&H LB.

Keppler's Long Island. Brk S&W.

Laing's Mammoth Red. VK. For similar names see *Red.*

Large-Ribbed Kalamazoo. Agn Del J&S MV Mzy *Sox* Tat Thr.

Similar names. See *Kalamazoo.*

Seedsmen's synonyms. *Dwarf White Solid,* Fer. *Kalamazoo,* Fer.

Large-Ribbed Red. Bur Mls. For similar names see *Red.*

Large Solid Golden Self-Blanching. Bgs.

Similar names. See *Golden Self-Blanching.*

Large Solid Golden Yellow. Buc *LB* Fer Fle Haw Iml Lam Loh Roc.

Similar names. See *Golden Self-Blanching.*

Seedsmen's synonyms. *Golden Self-Blanching,* Buc Fer Fle Iml Loh HP, etc.

Large-Stalked Golden Self-Blanching. Ken.

Similar names. See *Golden Self-Blanching.*

Large White. Bou Hnt Stw VZ.

Large White Plume. Stk. For similar names see *White Plume.*

Large White Solid. Alx Anb Btl Bkt Bow Bui Drr Eie Ewg Ger Gra Ken Mau Mhl Pac JMP Roc Shw Stk Tpk Wd WS.

Similar names. See *Giant White Solid.*

London Large Red. Bdg. For similar names see *London Red.*

London Market Red. Gng. For similar names see *London Red.*

London Prize Red. McK SB Thr. For similar names see *London Red.*

London Red. Bkt Brr Cur Hen S&W W&D.

Similar names. London Large Red, London Prize Red, London Market Red.

Long-Keeping. Pri.

Similar names. Price & Reed's Long-Keeping.

Long Red Giant. Buc.

McCullough's Paris Golden Yellow. Entered as *Paris Golden Yellow.*

Major Clark's Pink. Crs Mnd W&D. For similar names see *Pink Plume.*

Mammoth Red. Hns. For similar names see *Red.*

Mammoth White Solid. Bui Gdn. For similar names see *Giant White Solid.*

Manchester Prize Red. D&H. For similar names see *Red.*

Many Heart. JMM Mhl.

Similar names. Michell's Many Heart.

Matchless Giant Perfection Long-Keeping Golden Heart. M&S.

Matchless Red Solid. Min. For similar names see *Red Solid.*

Maule's Golden Self-Blanching. Entered as *Golden Self-Blanching.*

Mexican Solid. Cam Hst.

Monarch. Drr.

Similar names. Dreer's Monarch.

Michell's Many Heart. Entered as *Many Heart.*

Moore & Simon's Matchless Giant Perfection Long-Keeping Golden Heart, Moore & Simon's White Walnut. Entered as *Matchless Giant Perfection Long-Keeping Golden Heart* and *White Walnut.*

Noll's White Plume. Entered as *White Plume.*

Pacific Pink. Bai. For similar names see *Pink Plume.*

Paris Dwarf Golden Self-Blanching. *D&H* Vk.

Similar names. See *Golden Self-Blanching.*

Paris Golden. Brk G&T TG Mrs Wdr. For similar names see *Golden Self-Blanching.*

Seedsmen's synonyms. *Golden Self-Blanching,* Mrs.

Paris Golden Self-Blanching. Blg Brw C&J CF Fqr Gng G&T Hrm *J&S* Pot TB Wea.

Similar names. See *Golden Self-Blanching.*

Paris Golden Yellow. Bgs Cle D&H Ebe Ewg Gra Lan JCM JMM McK Raw Ren S&F Sim Stw.

Similar names. See *Golden Self-Blanching.*

Seedsmen's synonyms. *Golden Self-Blanching*, Bur Cur D&H. *Self-Blanching*, Sim.

Paris Large Solid Golden Yellow. Bru RE Ggy SB.

Similar names. See *Golden Self-Blanching*.

Paris Market White Solid. Fqr. For similar names see *Giant White Solid*.

Paris Rose Ribbed. Bru Bru D&H Drw RE Fer *Gls* Gng Hbt *RHJ* Ken Lam McK Ren Rs SB S&H Wea Wd.

Similar names. See *Rose*.

Seedsmen's synonyms. *Golden Rose*, Wd WS. *Pink Piume*, Drw.

Paris Self-Blanching. Brr. For similar names see *Golden Self-Blanching*.

Pennsylvania Long-Keeping. *Nol.*

Perfected White Plume, Perfected Kalamazoo. Entered as *White Plume* and *Kalamazoo*.

Perfection Heartwell. Alr Bai Brd Bkt Blg Bow Bdg Brn Bng Buc Bui Bur Brw *Cam CE* CF *Cox* Crs Cur Del DD Drr Ebe Ebr Eic Elt Evr Fst Fer Gls TG Ham Hrs Hrv Hlm J&S Jns Kos Kra Lan Lnr LB Loh Mnd Mau May JMM Mhl Mrs Mzy Nol NI NK Pac Pg Prn Ptt Por Pri Rce *Rim* Roc S&R S&F Shm Sie Stk Stw S&W Tat Tem Thr Til Vk Wat Wea W&D Wd WS Y&H.

Similar names. Thorburn's Perfection Heartwell.

Perfection Winter. Bkt.

Similar names. Beckert's Perfection Winter.

Perle Le Grand. *Bkt* Blg Bri Bru Frd Ggy G&T Ham *Hlm* J&S *Kei* LB Liv Mns Mau Mhl Mrs Roc Thr Wdr *WS*

Pink. Hnt Lan Pac HP Stw. For similar names see *Pink Plume*.

Seedsmen's synonyms. *Rose*, Fqr. *Red*, Lan.

Pink Aromatic. Iow. For similar names see *Pink Plume*.

Pink Beauty. *Put.*

Pink Plume. Alx Alr Brt Btl Blg *Bow* Brk Bdg Brn Bru Buc Bui Bur Brr C&J *CE* Cle C&B Col CF *Cox* Crs Cur DD Drr Ebe Eic Elt Ewg Fmr Fqr Fle Frd Gls Gra Gry G&T Grw TG Hns Ham Hrm Hrs Hen *H&C* Hlm H&P Iml *MWJ* J&M J&S Kei *Kg Lam* Lan Lnr LB Liv JL Man Mau May JMM McK McM Mhl Mls Mrs Mzy Nol NK OV Pac Pg Pks JMP Prn Pne Ptt Por Pot Pri Raw Rce Rs S&R S&F Shw S&O Shm Sim Spf SB Stw S&H S&W Tat Tem Thm Thr Thb Til *Tpk* T&B Vau Vk *Wat* W&D Wer Wd Wdr WS Yng Y&H.

Similar names. Henderson's Pink Plume, Improved Pink Plume, Pink Plume Self-Blanching, Pink, Pink Aromatic, Pacific Pink, Major Clark's Pink.

Seedsmen's synonyms. *Rose*, Brk. *Rose Ribbed Paris*, Drw.

Pink Plume Self-Blanching. Roc. For similar names see *Pink Plume*.

Price & Reed's Long-Keeping. Entered as *Long-Keeping*.

Prince of Wales Dwarf White. Kei Sim. For similar names see *Dwarf White*.

Seedsmen's synonyms. *Sandringham*, Kei Sim.

Red. Hnt Lan HP Stw.

Similar names. Dobbie's Red, Rose Red, Mammoth Red, Laing's Mammoth Red, Manchester Prize Red, Giant Red, Bruce's Hamilton Red, Hamilton Red, Large-Ribbed Red, Early Dwarf Red, Incomparable Dwarf Red.

Seedsmen's synonyms. *Pink*, Lan.

Red Solid. RHJ Mhl.

Similar names. Matchless Red Solid.

Seedsmen's synonyms. *Rose*, Mhl.

Rennie's Giant White. Ren. For similar names see *Giant White Solid*.

Rose. Brd Bkt Brk Bgs Bri Buc Brr C&J *CE* Chl Cle Col Crs Cur D&H Del Eas Elt Evr Ewg Fqr Frd Gra Gng Ggy Gry G&T Hrs Hlm Hop Hse H&P J&S Kei Kra Lnr LB Liv Mas *McK* May Mhl Mls Mrs Pac Pnt Ptt Rce Roc Rt Sal Sim Tem Thm *Thr* Til T&B Vin W&D Wer Wll Wdr.

SIMILAR NAMES. Hamilton Rose, Henderson's Rose, Dwarf Rose, Rose Ribbed Self-Blanching, Rose Ribbed Golden Self-Blanching, Rose Ribbed Paris Self-Blanching, Rose Ribbed Paris Golden Self-Blanching, Paris Rose Ribbed, Golden Rose, Henderson's Golden Rose, Rose Red.

SEEDSMEN'S SYNONYMS. *Dwarf Crimson*, Bdg. *Early Dwarf Red*, Bdg. *Pink*, Fqr. *Pink Plume*, Brk. *Red Solid*, Mhl.

Rose Red. TG. For similar names see *Rose*, *Red*.

Rose Ribbed Golden Self-Blanching. J&S Lnr S&W Thr. For similar names see *Rose*.

SEEDSMEN'S SYNONYMS. *Golden Rose*, Liv Mns.

Rose Ribbed Paris Golden Self-Blanching. *Fqr* Sim.

SIMILAR NAMES. see *Rose*.

Rose Ribbed Paris Self-Blanching. Bur C&J *G&T* Lnr Mau Rce Vau Vk.

SIMILAR NAMES. See *Rose*.

SEEDSMEN'S SYNONYMS. *Golden Rose*, Bur Lnr.

Rose Ribbed Self-Blanching. Bur Brk TG Iow Mrs Mzy *Pg* Yng.

SIMILAR NAMES. See *Rose*.

SEEDSMEN'S SYNONYMS. *Golden Rose*, Ggy J&S Mrs Tem.

Salzer's Giant. Sal.

Salzer's Self-Blanching. Sal. For similar names see *Golden Self-Blanching*.

Sandringham. Brk Cur GH S&F Sim.

SIMILAR NAMES. Sandringham Dwarf White.

SEEDSMEN'S SYNONYMS. *Prince of Wales Dwarf White*, Kei Sim.

Sandringham Dwarf White. Bgs Bui Crs Cur Ebe Ger Gry Kei MV Mzy Nol Pac Ren *Sox* Thr W&D.

SIMILAR NAMES. See *Sandringham*.

Savannah Market. Hst.

Schumacher. *Blg* Cle CF Drr Elt *TG* Hlm J&S Lan Lnr *Mau* JMM Mrs Nol Ptt Pri *Ree* Rim Roc *Sie* *S&W* Thr Vau W&D Wdr.

SIMILAR NAMES. Thorburn's Schumacher.

Self-Blanching. May Min NI OV Sim *Tpk*.

SIMILAR NAMES. See *Golden Self-Blanching*.

SEEDSMEN'S SYNONYMS. *Paris Golden Yellow*, Sim. *White Plume*, Ebe.

Seymour's Giant White. Sim. For similar names see *Giant White Solid*.

Seymour's White. Sal Vin.

Seymour's White Solid. Bgs Fer *Lnr*. For similar names see *Giant White Solid*.

Silver Spray. Bkt Hrm.

SIMILAR NAMES. Beckert's Silver Spray.

Simmers' Dwarf White Winter. Sim. For similar names see *Dwarf White*.

Simmers' Imperial. Entered as *Imperial*.

Simmers' Large-Ribbed Dwarf White Winter. Sim.

SIMILAR NAMES. See *Dwarf White*.

Smallage. Wdr.

SEEDSMEN'S SYNONYMS. *Cutting*, Wdr.

Solid Ivory. D&H Kra LB Vau.

SEEDSMEN'S SYNONYMS. *Kalamazoo*, D&H LB.

Soup. Buc Fer *Mau*.

Sutton's A1. *D&H* Thr.

Sutton's White Gem. Entered as *White Gem*.

Sweet Nut. M&S.

Thorburn's Fin de Siecle, Thorburn's Perfection Heartwell, Thorburn's Schumacher. Entered as *Fin de Siecle*, *Perfection Heartwell*, and *Schumacher*.

Triumph. Brd Bow Brk Bri Bur Brw Col Cur Dlw Ebe RE Ewg Fer *Gls* Ggy TG

Hbt *Hlm* J&S Jns Kos Lnr LB Liv *Loh* Mns May JMM Mrs Mzy Pg Pnt *Ree* Sie SB Thm Thr Vau.

Similar names. Evans' Triumph, White Triumph.

Vaughan's Giant Golden Heart. Entered as *Giant Golden Heart.*

Vautier's Giant Golden Heart, Vautier's Golden Heart. Entered as *Giant Golden Heart* and *Golden Heart.*

Victory. Blg.

Vilmorin's Giant Pascal, Vilmorin's Golden Self-Blanching. Entered as *Giant Pascal* and *Golden Self-Blanching.*

White Gem. Mhl.

Similar names. Sutton's White Gem.

White Plume. Agn Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Blg Bow *Bgg* Brk Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr Brw C&J Cam CE Chl Cle C&B Col CF Cok Cox Crg Crs Cur Dlw D&H Del DD D&C Drr Drw Drm Dun Eas Ebe Ebr Elt Emr Evr Ewg Fmr Fqr Fst Fax Fer Fld Fle Frd Ger Gls GH Gra Gng GN Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hst Haw Hen Hbt H&C Hlm Hop Hse Hnt H&P Iml Iow Jer RHJ J&M J&S Jns Kei K&W Ken K&F Kg Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Lon Mnd Mgd Man PM Mns Mas Mau May JCM JMM McK McM Mel Mic Mhl Mls Min MV Mrs Mzy Neb Nef Nol NI NK OV Old Pac Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr *Rtk* Raw Ree Ren Rce Rim Roc Rt Rs RP Sal S&R SC S&F S&B Shw S&O Shm Sie Sim Sox Spf SB Stw S&H S&W Tat Tem Tex TB Thm Thr Thb AGT *Tlh* Til Tpk Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wer Wll Wlt Wd Wdr WS Wyg Yng Y&H.

Similar names. Alexander's White Plume, Henderson's White Plume, Holmes' White Plume, Improved White Plume, Hammond's Improved White Plume, Perfected White Plume, Henderson's Perfected White Plume, Early White Plume, Giant White Plume, Large White Plume.

Seedsmen's synonyms. *Self-Blanching*, Ebe.

White Solid. Col CF G&T Kei May *Pac* Sim S&W Tat T&B.

Similar names. See *Giant White Solid.*

White Triumph. Gra. For similar names see *Triumph.*

White Walnut. Buc *CE* M&S Pir Ren Sal S&F Shm *S&W* W&D.

Similar names. Moore & Simon's White Walnut.

Winter King. May. For similar names see *Winter Queen.*

Seedsmen's synonyms. *Giant Pascal*, May.

Winter Queen. Bri Bru Bui Bur Brw Drr Frd Ggy *G&T* TG Hlm J&S *Lnr Mau JMM* Mhl Mrs *Rim* Roc *Vl WS.*

Similar names. Winter King.

CHERVIL.

Chervil. Btl Cle Cox Dlw Ebe Fmr Fqr Gra G&T Grw Hns Hde Hst MWJ J&S Ken Lan Mau MV Mzy Neb HP Pnt Por Sal SC Sie Spf Stk Vin Wea.

Curled. Bai Bkt Bow Brk Bdg Bgs Bru Bng Buc C&B Crs Cur DD Drr Elt Emr RE Ewg Fst Fqr Fer Ger GH Gry Hrm Haw Hen J&M Kei K&W Lam Lnr LB Mnd May Mhl Mzy Nol NK Poo Pot Pri Pug Raw Ren Rce Roc S&R Sim SB S&W Tat Thr T&B W&D.

Double. Bdg GH Mhl.

Double Curled. Gra Vau.

Fine Curled. S&F.

Italian Curled. M&S.

Plain. Bgs Eic Gra Thr.

Tuberous Rooted. Brk Bdg Bng Elt GH Lnr Mnd Mzy Nol Thr W&D.

CHICORY.

Chicory. Ber Bur Cle Ewg Frd Gra G&T Grw Ham RHJ Kei Mau Mzy Pri Sal Spf AGT.

Asparagus. Buc.

Coffee. Anb Ar Brt Bow Bru Bng Buc Brr Cox Cur D&H RE Evr Fer Ger H&P J&S Lnr LB May Neb Pac Pg Pks Pnt Ptt Raw Roc RP SC SB Wer Yng.

Common. Drr Elt Ger GH J&M Pac Thm Thr Wea.

Curled. Ken.

Improved Large-Leaved. Ebe.

Large Magdeburg. SB.

Large Red Magdeburg. Brd.

Large-Rooted. Anb Ar Bow Brk Bgs Bri Bru Bng Buc Bur Brr Col Cox Crs Cur D&H DD Drr Drm Ebe Elt Emr RE Evr Fqr Fst Fer Ger Grw Hns Hrm Hrn Hen H&P Iow J&M J&S Kei K&W Ken Kos Lam Lnr LB Liv May JMM Mhl Mzy Neb NK Pac Pg Pks Pnt Ptt Poo Por Pug Qkr Raw Ree Roc RP S&R SC S&F Shm Sox Stw Tat TB Thm Thr Til Trm Wea W&D Wer Yng.

Large-Rooted Brussels. Pot Vau.

Large-Rooted Coffee. GH Ggy.

Large-Rooted Magdeburg. Bai Brt Bkt C&B GH Mnd MV OV HP Pot Ren Sim S&W Thr T&B Vau Vin.

Long Large-Rooted Magdeburg. Vk.

Magdeburg. Cle.

Mammoth-Rooted. M&S.

Wild. Drr Elt Ger J&M Pac Thm Thr Wea.

Witloof. Brk Ger Mnd Pac Pot S&W Thr Vau W&D.

CHIVES.

Chives. Brd Btl Bkt Buc Bur Cur D&H Elt Fmr Fqr Ger Gry Iow MWJ J&S Koe Lam Liv Mnd Mgd JMM Mhl M&S Mzy Neb HP Pir Pnt Ptt Pot Raw Ren Sal SC S&F Sim Thr Trm Vau W&D Wer.

CHUFAS.

(Also known as Earth Almonds and Grass Nuts.)

Chufas. Alx Brd Buc Bur Cam Crs Eic Gdn Hde Hst Hen Iow J&M J&S Kos Liv McM Old Ptt Ren Shw Shm Stk Tex Vau Wlt.

Seedsmen's synonyms. *Earth Almonds* and *Grass Nuts.*

Spanish. MWJ Wd.

COLLARDS.

Blue Stem. Cam Jac.

Similar names. Georgia Blue Stem, Long Blue Stem, North Carolina Blue Stem.

Buist's Cabbage. Bui. For similar names see *Cabbage.*

Buncombe. *Lan.*

Cabbage. CE CA Pnt.

Similar names. Buist's Cabbage, White Cabbage, Georgia White Cabbage.

Seedsmen's synonyms. *Georgia*, CE. *Improved White Georgia*, Gfg.

Creole. Btl Cox Crs Drr Fmr Fer H&P Lan *Lnr* LB May McM Pnt SC Sim S&H Tem Tex *Vl.*

Similar names. Southern Creole.

Seedsmen's synonyms. *Georgia*, Btl Buc Cox Fer Frd Fmr, etc. *Southern*, Buc Btl Drr Fer May Sim, etc.

Georgia. Btl Bel Bou Bow Brk Bdg Bgs Bur Brr Cam CE Cle C&B CF Cok Cox Crg Crs Del Eic Fmr Fst Fer Ger GH GN G&T Ham Hde Hrs Hst Hen Hlm Hop H&P Iow Jac MWJ J&M J&S Kg Lam Lan Lnr LB Man Mau May JMM McM MV M&S Mzy Nef NI NK Pac Poo Pug Qkr Ree Rce Sal Shm Sim Sox S&H Tem Thm Thr Trm *Vl* Vau Vk Vin Web W&D Wd WS.

Similar names. Improved White Georgia, Long Georgia, Georgia White Stem, Georgia Blue Stem, Georgia Southern, Georgia White Head.

Seedsmen's synonyms. *Cabbage Greens*, CE. *Creole*, Buc Btl Cox Frd H&P Tem, etc. *Silver*, Thm. *Southern*, Bow Btl Buc Hlm H&P Pug, etc. *Southern Curled*, M&S.

Georgia Blue Stem. *Cam* Wlt. For similar names see *Georgia*, *Blue Stem*.

Georgia Southern. Evr Fer. For similar names see *Georgia*, *Southern*.

Georgia White Cabbage. Shw Wlt. For similar names see *Georgia*, *Cabbage*.

Georgia White Head. Cam Jac. For similar names see *Georgia*, *White Head*.

Georgia White Stem. Bui. For similar names see *Georgia*.

Improved White Georgia. Entered as *White Georgia*.

Landreth's Marrow. Lan.

Long Blue Stem. CA. For similar names see *Blue Stem*.

Long Georgia. Alx. For similar names see *Georgia*.

Mammoth Southern. Grw. For similar names see *Southern*.

Marrowfat. Sal.

North Carolina Blue Stem. Bur.

Similar names. North Carolina Short Stem, North Carolina Buncombe.

North Carolina Buncombe. Shw.

Similar names. See *North Carolina Short Stem*.

North Carolina Short Stem. Hst Wd WS.

Similar names. North Carolina Buncombe, North Carolina Blue Stem.

Pink Heart. MWJ Lan.

Rosette. Ren.

Silver. J&M Thm.

Seedsmen's synonyms. *Georgia*, Thm.

Southern. Btl Bow Cam *Crg* Drr Drm Fer GH Hst Hlm H&P Jac MWJ Lan *Lnr* LB Liv May Pnt Ptt Pug SC Shw Sim Tat Tex Web.

Similar names. Georgia Southern, Mammoth Southern.

Seedsmen's synonyms. *Creole*, Btl Buc Drr Fer LB May, etc. *Georgia*, Btl Bow Fer Lan Pug Sim, etc.

Southern Creole. GH. For similar names see *Southern*, *Creole*.

White Cabbage. Tat. For similar names see *Cabbage*.

White Georgia. Alx CA Gfg Kg. For similar names see *Georgia*.

Seedsmen's synonyms. *Cabbaging*, Gfg.

White Head. Hst.

Similar names. Georgia White Head.

White-Leaved. MWJ.

CORN (FIELD CORN).

Alexander's Southern White Snowflake. Entered as *Southern White Snowflake*.

All Gold. Sal.

Similar names. Salzer's All Gold.

American Pride Early Yellow Dent. Ham.

Similar names. Hammond's American Pride Early Yellow Dent.

Angel of Midnight. Brk Bru CSC Crs Cur D&H Ebe Emr RE Ewg Fqr Kei Kos May Pot Pri Raw Rob Sal Sim Thr Wer.

Armstrong's Early Rose. Mic MV *Sox.* For similar names see *Early Rose.*

Atwell. *Gls.*

Seedsmen's synonyms. *Dutton*, Gls.

Austin's Colossal Yellow Dent. J&S.

Bailey's Favorite. D&H. For similar names see *Farmer's Favorite.*

Barnard's Early Yellow Dent. Brd. For similar names see *Yellow Dent.*

Battles' Cuban Giant Dent. Hop. For similar names see *Cuban Mammoth.*

Bennett's Yellow. *Alx.*

Black Hawk. DD.

Bloody Butcher. *CE* CSC Frd Gra Hrs Kg NK Pir.

Seedsmen's synonyms. *Northwestern Dent*, NK.

Blue Blazed. D&H. For similar names see *Red Blazed.*

Blunt's Mammoth. Fqr. For similar names see *Blunt's Prolific.*

Blunt's Prolific. Brk C&J Cam CSC Eic Ggy G&T Hrm Hst J&S K&W Kg *JMM* McM Mzy Stk Tat Thm Thr Wd.

Similar names. Blunt's White Prolific, Blunt's Mammoth.

Seedsmen's synonyms. *Mammoth Ensilage*, J&S.

Blunt's White Prolific. Alx Bui Drr Frd Gdn Mhl Pnt.

Similar names. See *Blunt's Prolific*, *White Prolific.*

Bonanza White Dent. May. For similar names see *White Dent.*

Boone County Prolific. Roc.

Similar names. Boone County White.

Boone County White. *Err* Wyg. For similar names see *Boone County Prolific.*

Boston Market. Brk.

Similar names. Breck's Boston Market.

Breck's Boston Market. Entered as *Boston Market.*

Buckbee's Early Gold Mine, Buckbee's Early Klondike. Entered as *Early Gold Mine* and *Early Klondike.*

Buist's Early Golden Dent. Bui. For similar names see *Golden Dent.*

Buist's Improved Early Golden Dent, Buist's Prize Medal Southern White Snowflake. Entered as *Buist's Early Golden Dent* and *Prize Medal Southern White Snowflake.*

Burpee's Golden Beauty, Burpee's Improved Golden Beauty. Entered as *Golden Beauty.*

Butler Dent. Ggy. For similar names see *Early Butler Dent.*

Calico Dent. Hrn JL Pir.

Similar names. Up-to-date Calico Dent, Robb's Improved Calico Dent.

Canadian Cap. Rs.

Canadian Dent. D&H. For similar names see *Early Eight-Rowed Yellow Canada.*

Cary's Klondike. Kg WS. For similar names see *Klondike.*

Champion Early White Pearl. *Bak* HP Pnt Shw Tex Yng.

Similar names. See *Champion White Pearl.*

Champion White Dent. Alx. For similar names see *Champion Yellow Dent.*

Champion White Flint. May. For similar names see *Champion Yellow Dent.*

Champion White Pearl. Alx Alr Anb Ar Bai Btl Bow Bui CSC Cle CCo Col Cox DD Ebr Eic Ewg Fmr Ger GH Gra Ham Hde Hrn *Hst Iow* MWJ J&M Kg Lam *Lnr* LB JL Mgd May JCM JMM Mls MV Mzy Old *Por* Rob Sal *S&R* S&O Sox Spf Stk Thm Thr Trm Vin Vk Wer.

Similar names. Champion Early White Pearl, Early White Pearl, Extra Early Pearl, Illinois White Pearl, Mammoth White Pearl, Powell's Improved White Pearl, Sioux White Pearl, Wernich's Sweet Pearl, Sweet Pearl.

Champion Yellow Dent. Alx Iml MWJ *S&O Tex* Til.

Similar names. Early Champion, Yellow Dent, Champion White Dent, McCullough's Champion White Dent, Champion White Flint.

Chester County Mammoth Dent. Bui Bur CSC Drm Fst GH J&S Mns Mau Mhl Min M&S Mzy Nef Nol Ren Roc Sal *Shw* Sim Tpk W&D.

Chestnut Grove Yellow. G&T.

Chickasaw. Anb.

Clark's Cuban White Dent, Clark's Cuban Yellow Dent, Clark's Early Butler Dent, Clark's Early Mastodon, Clark's Early Yellow Mastodon, Clark's Extra Early Huron Dent, Clark's Mastodon. Entered as *Cuban White Dent*, *Cuban Yellow Dent*, *Early Butler Dent*, *Early Mastodon*, *Early Yellow Mastodon*, etc.

Cloud's Early Mammoth Dent. Bui. For similar names see *Cloud's Yellow Dent.*

Cloud's Early Yellow Dent. Bru D&H Ewg Mhl Ren SB.

Similar names. See *Cloud's Yellow Dent.*

Cloud's Yellow Dent. Drr Wat.

Similar names. Cloud's Early Yellow Dent, Cloud's Early Mammoth Dent.

Cocke's Prolific. Alx CA Hst Kg McM S&F Wlt Wd.

Similar names. See *White Prolific.*

Cocke's White Prolific. MWJ. For similar names see *White Prolific.*

Compton's Early Yellow. CSC EBC C&B D&H RE Ewg Gra Hen Kei *McK* May Ptt Pri Ren Rob Sie Sim SB Thr.

Similar names. Compton's Early Yellow Twelve-Rowed.

Compton's Early Yellow Twelve-Rowed. Bru.

Similar names. See *Compton's Early Yellow.*

Connecticut White. Wer.

Conscience. MWJ Shw.

Copley's Pride. *TB.*

Cornucopia White Dent. Del JCM.

Crane's Prolific. Bgg. For similar names see *White Prolific.*

Cuban Giant Dent. Gra May. For similar names see *Cuban Mammoth.*

Cuban Giant White Dent. Bru RE Sim. For similar names see *Cuban Mammoth.*

Cuban Giant Yellow Dent. Ewg. For similar names see *Cuban Mammoth.*

Cuban Mammoth. Gng Kei Neb.

Similar names. Cuban Mammoth White Dent, Cuban Mammoth Yellow Dent, Cuban Giant White Dent, Cuban Giant Yellow Dent, Cuban Giant Dent, Battles' Cuban Giant Dent, Clark's Cuban Yellow Dent, Clark's Cuban White Dent, Cuban Yellow Dent, Cuban White Dent.

Cuban Mammoth White Dent. CSC. For similar names see *Cuban Mammoth.*

Cuban Mammoth Yellow Dent. CSC D&H RE Kg Ren Sim SB.

Similar names. See *Cuban Mammoth.*

Cuban White Dent. CSC. For similar names see *Cuban Mammoth.*

Cuban Yellow Dent. CSC. For similar names see *Cuban Mammoth.*

Currie's Earliest of All. Cur.

Dakota Dent. GH Hbt NK RP Wll.

Similar names. Northrup, King & Co.'s Dakota Dent, Early Dakota Dent, Extra Early Dakota Dent, Will's Dakota Flint, North Dakota Flint, North Dakota White Flint, Salzer's North Dakota White Flint, North Dakota Yellow Flint, Salzer's North Dakota Yellow Flint, South Dakota Yellow Flint, Salzer's South Dakota Yellow Flint, Dakota Queen Yellow Dent, Extra Early Dakota Queen Yellow Dent.

Dakota Queen Yellow Dent. May. For similar names see *Dakota Dent.*

Dakota Flint. NK Wll. For similar names see *Dakota Dent.*

Delaware County Yellow Dent. J&S Koe.

Delaware Sheep Tooth. *Y&H.*

Duly's Hybrid. Kra MV Sox.

Dungan's White Prolific. *Bak* CSC H&C H&P *Vl.*

Similar names. See *White Prolific.*

Dutton. *Gls* Pri.

Seedsmen's synonyms. *Atwell*, Gls.

Early Butler Dent. Bru EBC C&B Ebr Ewg Frd Gra Hen Kei Pri Ren *Shw* Sim.

Similar names. Clark's Early Butler Dent, Early Butler Yellow Dent, Butler Dent.

Early Butler Yellow Dent. *CSC* D&H DD RE Hrv Shm SB.

Similar names. See *Early Butler Dent.*

Early Canada. Bur LB.

Seedsmen's synonyms. *Yellow Flint*, LB.

Early Champion Yellow Dent. Shw.

Similar names. See *Champion Yellow Dent.*

Early Dakota Dent. Pug. For similar names see *Dakota Dent.*

Early Eclipse. *Bak.*

Early Eight-Rowed Yellow Canada. Bgg C&J Nef Ptt Pri Rob Wdr.

Similar names. Improved Early Yellow Canada, Eight-Rowed Early Yellow Canada, Twelve-Rowed Early Yellow Canada, Eight-Rowed Yellow Canada, Yellow Canada, Improved Yellow Canada, Canadian Dent, White Canada, Large White Canada, Pride of Canada.

Early Eight-Rowed Yellow Flint. Bru Pac.

Similar names. See *Eight-Rowed Yellow Flint.*

Early Giant White Dent. D&H *Shw.*

Similar names. Rennie's Early Giant White Dent, Salzer's Early Giant White Dent.

Early Golden Beauty. Bui Eic Hly. For similar names see *Golden Beauty.*

Early Golden Dent. Bgs CSC Eic Fer Gdn GH MWJ Koe LB Loh Pnt *Shw* Sie.

Similar names. See *Golden Dent.*

Seedsmen's synonyms. *Pride of the North*, Bgs Fer LB Koe.

Early Golden Dewdrop. EBC. For similar names see *Golden Dewdrop.*

Early Golden Kansas King. M&S. For similar names see *Kansas King.*

Early Golden Surprise. Iml. For similar names see *Golden Surprise.*

Early Gold Mine. Buc *HP* Roc. For similar names see *Iowa Gold Mine.*

Early Hickory King. M&S. For similar names see *Hickory King.*

Early Horse Tooth. Hen. For similar names see *Southern Horse Tooth.*

Early Huron Dent. Emr *May* NK Ren Rob Sal. For similar names see *Huron Dent.*

Early Imperial. Ber.

Early Iowa Yellow Dent. Til. For similar names see *Iowa Gold Mine.*

Early Kansas King. Hly. For similar names see *Kansas King.*

Early King Philip. EBC Mzy. For similar names see *King Philip.*

Early Klondike. Buc Roc. For similar names see *Klondike.*

Early Large White Flint. Alx Cox. For similar names see *Large White Flint.*

Early Leaming. Blg Bui RE Gra G&T *Hde* Hnt Kei Mhl SB Thr.

Similar names. See *Leaming.*

Early Longfellow. EBC Ewg Fmr Gra Iow Pg. For similar names see *Longfellow.*

Early Mammoth White Dent. Mls. For similar names see *Mammoth White Dent.*

Early Market. *Shw.*

Early Mastodon. Alx Alr Bak Btl Ber Blg Bru Buc Bui Bur CSC Cle Col Cur D&H Drr Drm Ebr Emr RE Fmr Fst Frd GH Gra TG Ham Hde Hrv Hen H&C Hlm Hnt Iml Iow J&S *Kei* Kel Kg *Lnr* Mgd Mau May JMM Mls OV Pac Pg Ptt Pri Qkr Raw Rob Roc Rs Sie Sim S&H Tat Tex *Tpk* Vk Wer Wdr.

Similar names. See *Mastodon.*

Early Minnesota King. CSC. For similar names see *Minnesota King.*

Early Northern White Dent. *CE* CSC. For similar names see *Northern White Dent.*

Early One Hundred Day Bristol. Drr. For similar names see *One Hundred Day.*

Early Ontario. *Ren.*

Early Orange. Drm.

Early Pride of the North. Hnt. For similar names see *Pride of the North.*

Early Red Blazed. Bow Fer *Gls* LB Loh. For similar names see *Red Blazed.*

Seedsmen's synonyms. *Smut Nose*, Fer.

Early Rose. Sox.

Similar names. Armstrong's Early Rose, Yellow Early Rose.

Early Sanford. Brt Brk Dun Emr Fqr Gry Hrm K&W Neb S&F.

Similar names. . See *Sanford.*

Early Sheep Tooth. Elt Vk. For similar names see *Sheep Tooth.*

Early Vermont. Hop.

Early White Dawn. Liv Shw.

Early White Dent. CSC MWJ. For similar names see *White Dent.*

Early White Flint. Bow Bru Iow Min *Pg* Pnt Por Pri S&R Sim Tat.

Similar names. See *White Flint.*

Early White Pearl. Hly. For similar names see *Champion White Pearl.*

Early White Surprise. Shw. For similar names see *Golden Surprise.*

Early Wisconsin White Dent. Cur Sal.

Similar names. See *Wisconsin White Dent.*

Early Yellow Canada. Bui Drr Emr Fqr Ggy J&S Raw Thr W&D.

Similar names. See *Early Eight-Rowed Yellow Canada.*

Seedsmen's synonyms. *Early Yellow Flint*, Mhl.

Early Yellow Clarage. HP. For similar names see *Yellow Clarage.*

Early Yellow Dent. TG.

Early Yellow Flint. Iow Mhl Pnt. For similar names see *Yellow Flint.*

Seedsmen's synonyms. *Early Yellow Canada*, Mhl

Early Yellow Huron Dent. RE GH NK. For similar names see *Huron Dent.*

Early Yellow Leaming. Shw. For similar names see *Leaming.*

Early Yellow Longfellow. Shm. For similar names see *Longfellow.*

Early Yellow Mastodon. Yng. For similar names see *Mastodon.*

Early Yellow Rose. *S&O.*

Eclipse. Btl Pnt Trm.

Eight-Rowed Early Yellow Canada. Bgg C&J Nef Ptt Pri Rob Wdr.

Similar names. See *Early Eight-Rowed Yellow Canada.*

Eight-Rowed Yankee. Brn. For similar names see *Yankee.*

Eight-Rowed Yellow. Ebe. For similar names see *Eight-Rowed Yellow Flint.*

Eight-Rowed Yellow Canada. Lnr Min.

Similar names. See *Early Eight-Rowed Yellow Canada.*

Eight-Rowed Yellow Flint. Bgs Lam.

Similar names. Large Eight-Rowed Yellow Flint, Improved Eight-Rowed Yellow Flint, Early Eight-Rowed Yellow Flint, Mammoth Early Eight-Rowed Yellow Flint, Mammoth Early Eight-Rowed Flint, Mills' Mammoth Early Eight-Rowed Yellow Flint, Eight-Rowed Yellow, Mammoth Eight-Rowed Yellow.

Everitt's Mortgage Lifter. Evr. For similar names see *Mortgage Lifter.*

Expansion. Ber.

Extra Early Dakota Dent. Neb. For similar names see *Dakota Dent.*

Extra Early Dakota Queen Yellow Dent. OV *Tpk.*

Similar names. See *Dakota Dent.*

Extra Early Huron Dent. *CE* CSC Crs D&H DD Ewg Frd Hen Hlm H&P *Kei Lnr* Mau May JCM Mls *Pg* HP Roc Shw Sie.

Similar names. See *Huron Dent.*

Extra Early Iowa Yellow Dent. JL. For similar names see *Iowa Gold Mine.*

Extra Early King Philip. D&H HP Roc Shm.

Similar names. See *King Philip.*

Extra Early Large Yellow Yankee. Buc Roc. For similar names see *Yankee.*

Extra Early Leaming. Tpk. For similar names see *Leaming.*

Extra Early Pearl. Gdn. For similar names see *Champion White Pearl.*

Seedsmen's synonyms. *White's Surprise*, Gdn.

Extra Early Squaw. Shm. For similar names see *Squaw.*

Extra Early Yellow Huron Dent. H&C. For similar names see *Huron Dent.*

Extra Early Yellow Summer Flint. Dlw.

Extra Early Yellow Yankee. Shm. For similar names see *Yankee.*

Farmer's Favorite. CSC Cle GH *J&S* May *Shr* Thr W&D.

Similar names. Bailey's Favorite, Forsythe's Favorite, Murdock's Favorite, Riley's Favorite.

Farmer's Friend. Hrs.

Farmer's Interest. WS.

Farmer's Pride. Alx.

Farmer's Reliance. Iow.

Seedsmen's synonyms. *O'Connell's Early*, Sox.

Farmer's Surprise. *Shr.*

Farmer's Yellow Surprise. D&H. For similar names see *Golden Surprise.*

First Crop. Sie.

Similar names. Siegel's First Crop.

Fitche's Antique Red Cob. Gdn. For similar names see *Red Cob.*

Florida Flint. Gfg.

Similar names. Griffing's Florida Flint.

Ford's Sure Crop Yellow Dent. Frd. For similar names see *Yellow Dent.*

Forsythe's Favorite. Btl Evr. For similar names see *Farmer's Favorite.*

Fuller's Early Yellow. Ggy *Pir.*

Gehu Seventy Day. Vau Wll.

Similar names. Will's Gehu Seventy Day.

Genesee Valley. Bgs Hrv Vk.

Gentry's Early Market. Kg Wd.

Giant Beauty Dent. J&S M&S. For similar names see *Golden Beauty.*

Giant Long Flint. Vau.

Giant Mexican June. Iow. For similar names see *Mexican June.*

Giant Red. JL.

Giant Southern White. Ewg Gra. For similar names see *Southern White.*

Giant White Normandy. DD.

Gilbert's White Flint. Gfg. For similar names see *White Flint.*

Goddard's King of the Earliest. Entered as *King of the Earliest.*

Gold Coin. Bgs Hrm.

Similar names. Livingston's Gold Coin, Michell's Gold Coin.

Golden Beauty. Alx Anb Ar Bak Btl Bou *Bow* Brk Bdg Bur Cam *CE* CSC Cle C&B Cox Chm DD Drr Drm Ebr Eic Emr Fst Ger Gdn Gry Hde Hrn Hen Hly Hlm Iow J&S Kg Kos Lan Lnr Mgd PM Mns Mau May JMM McM Mhl Min Nef Nol Pac Ptt Rob Shw Spf Stk Tex Thr Trm Vk W&D WS Yng.

Similar names. Burpee's Golden Beauty, Koss' Golden Beauty, Pedrick's Perfected Golden Beauty, Early Golden Beauty, Improved Golden Beauty, Burpee's Improved Golden Beauty, Mammoth Golden Beauty, Giant Beauty Dent, Johnson & Stokes' Giant Beauty, Iowa Beauty.

Golden Cap. Ber.

Golden Combination. Sal.

Similar names. Salzer's Golden Combination.

Golden Dent. Bou Buc Cam Cle CA Hst Kg Lan McM Roc Tat Wd WS.

Similar names. Improved Golden Dent, Early Golden Dent, Improved Early Golden Dent, Buist's Improved Early Golden Dent, Large Grain Golden

Dent, Late Golden Dent, Yellow IXL Golden Dent, Yellow Golden Dent, Huntington & Page's Golden Dent, Murdock Golden Dent. See also *Yellow Dent.*

Seedsmen's synonyms. *Improved Pride of the North*, Buc Roc.

Golden Dewdrop. CSC Ptt Pri Vau W&D.

Similar names. Early Golden Dewdrop.

Golden Longfellow. M&S. For similar names see *Longfellow.*

Golden Row Yellow Dent. *Lnr* Neb Vau. For similar names see *Yellow Dent.*

Golden Superb. Chl.

Golden Superior. M&S.

Similar names. Mills' Golden Superior.

Golden Surprise. Koe.

Similar names. Early Golden Surprise, Livingston's Early Golden Surprise, Farmer's Yellow Surprise, White Surprise, Early White Surprise, Mammoth White Surprise.

Golden Triumph. Ber Sal. For similar names see *Triumph.*

Gold King. Alr.

Similar names. Silver King.

Gold Mine. Hlm. For similar names see *Iowa Gold Mine.*

Gold Standard Yellow. Rtk.

Similar names. Ratekin's Gold Standard Yellow.

Gourd Seed Golden Dent. *Eic* Stk.

Similar names. Gourd Seed Leaming, Yellow Giant Gourd, Higdon's Mammoth Gourd Seed, Southern White Gourd.

Gourd Seed Leaming. Drr.

Similar names. See *Gourd Seed Golden Dent*, *Leaming.*

Griffing's Florida Flint. Entered as *Florida Flint.*

Griswold's Wonder. Bak Grw.

Similar names. New Century Wonder, Vail's New Wonder Golden Dent.

Guinea. Lan.

Hammond's American Pride Early Yellow Dent, Hammond's Sixty Day Flint, Hammond's White Cap Yellow Dent. Entered as *American Pride Early Yellow Dent*, *Sixty Day Flint*, and *White Cap Yellow Dent.*

Hammond's White Dent. Ham. For similar names see *White Dent.*

Hanna White. Shw.

Harnden Seed Co.'s White Perfection. Entered as *White Perfection.*

Harris' Mammoth Yellow Flint. Hrs.

Hastings' Six-Ear. Hst.

Henderson's Eureka. Hen.

Similar names. Pierson's Eureka.

Hickory King. Alx Bak Btl Blg Bou Bur Cam CSC C&B CA DD Drr Drm Eic Fst Ger Gdn GH *G&T* Hde Hrn Hst Hen Iow MWJ J&M J&S Kg PM Mns Mau May JCM JMM McM Mhl Pnt Ptt *Pri* Qkr Roc Sal Sim Spf Stk S&H Tat Tex Thr Trm T&B Vin Wd.

Similar names. Improved Hickory King, White Hickory King, Steelman's Early Hickory King.

Higdon's Mammoth Gourd Seed. Gdn.

Similar names. See *Gourd Seed Golden Dent.*

Hogue's Yellow Dent. Bak. For similar names see *Yellow Dent.*

Seedsmen's synonyms. *Nebraska Yellow Prize*, Bak.

Holmes' Yellow Dent. Hlm. For similar names see *Yellow Dent.*

Holt's Early Mammoth. Brn.

Holt's Strawberry. Kg Wd.

Houghton's Silver White Flint. Sal. For similar names see *White Flint.*

Huntington & Page's Golden Dent. H&P. For similar names see *Golden Dent.*

Huron Dent. May.

Similar names. Early Huron Dent, Extra Early Huron Dent, Clark's Extra Early Huron Dent, Extra Early Yellow Huron Dent, Early Yellow Huron Dent.

Illinois White Pearl. Shw. For similar names see *Champion White Pearl.*

Imperial. *Rtk.*

Improved Early Golden Dent, Improved Early Horse Tooth, Improved Early Leaming, Improved Early Mastodon, Improved Early Sheep Tooth, Improved Early Yellow Canada, Improved Eight-Rowed Yellow Flint, Improved Golden Beauty, Improved Golden Dent, Improved Hickory King, Improved King Philip, Improved Large White Flint, Improved Large Yellow Dent, Improved Leaming, Improved Longfellow, Improved Maryland Yellow Dent, Improved Mortgage Lifter, Improved Ninety Days Leaming, Improved Pride of the North, Improved Sanford, Improved Southern White Snowflake, Improved White Dent, Improved White Prolific, Improved Yellow Canada, Improved Yellow Flint, Improved Yellow Leaming. Entered as *Early Golden Dent, Early Horse Tooth, Early Leaming, Early Mastodon, Early Sheep Tooth, Early Yellow Canada*, etc.

Iowa Beauty. Shw. For similar names see *Golden Beauty.*

Iowa Gold Mine. Alr Ar Bak Brd Btl Blg *CE* CSC Col Cur D&H Ebr Evr Fmr Frd Grw Ham *Hde* Iow Kg Kra Lnr JL Mgd *Mns* Mau May JCM JMM Mic MV NK OV Pac Pg Pnt *Pri* Rob Roc Sal Shw *S&O* Sox Spf Stw S&H *Tex* TB Thr *Tpk* Trm *Vl* Vau Wer.

Similar names. Nebraska Gold Mine, Ohio Early Gold Mine, Buckbee's Early Gold Mine, Early Gold Mine, Gold Mine, Iowa Silver Mine, Silver Mine, Iowa Yellow Dent, Early Iowa Yellow Dent, Extra Early Iowa Yellow Dent.

Iowa Silver Mine. Alr *Ar Bak* Brd Btl Buc *CE* CSC Col D&H DD Ebr Evr Fmr Frd GH Ham Hde Iow Kra Lnr JL Mgd *Mns* Mau May Mic MV Neb Old Pac Rtk Rob Roc Sal Shw *S&O* Shm Sox Spf Tex TB *Thm* Trm Vau Vk Wer.

Similar names. See *Iowa Gold Mine.*

Iowa Yellow Dent. Iow. For similar names see *Iowa Gold Mine.*

John's Large Southern Bread. MWJ.

Johnson & Stokes' Giant Beauty Dent. Entered as *Giant Beauty Dent.*

Jumbo King. Hrn.

Kansas King. Bai Hly.

Similar names. Early Kansas King, Early Golden Kansas King, White Kansas King, Kansas Sunflower Corn.

Kansas Sunflower Corn. Btl Hly. For similar names see *Kansas King.*

Kent White Prolific. Mau. For similar names see *White Prolific.*

Keystone Mammoth Pride. Hlm.

King of Illinois. *Lnr* Vau.

King of the Earliest. Btl Bgs Bur *CE* CSC Cox Cur Ebr Ewg GH Gry J&M Kel May JMM Neb OV Pac Rob Sal S&O S&H TB Thm Thr *Tpk* Wer.

Similar names. Goddard's King of the Earliest, Salzer's King of the Earliest.

King Philip. Anb Brd Bdg CSC Drm *Ger* Hrv Hen J&M Kei Kg Kra Lam Lnr May *JMM* NK Por Pri Rob RP Sal S&R Sie Sim Thr Vau Vin W&D *Wer.*

Similar names. Early King Philip, Extra Early King Philip, Improved King Philip, Red King Philip.

Klondike. Hst Mau.

Similar names. Cary's Klondike, Maule's Klondike, Early Klondike.

Koss' Golden Beauty. Entered as *Golden Beauty.*

Landreth's Southern Prolific. Entered as *Southern Prolific.*

Large Early Rural White Flint. HP. For similar names see *Rural White Flint.*

Large Eight-Rowed Yellow Flint. Sie.

Similar names. See *Eight-Rowed Yellow Flint.*

Large Grain Golden Dent. Gdn. For similar names see *Golden Dent.*

Large Maryland White. Bui. For similar names see *Maryland White.*

Large Mastodon. Shm. For similar names see *Mastodon.*

Large Mexican June. Drm. For similar names see *Mexican June.*

Large Northern White Dent. Shm. For similar names see *Northern White Dent.*

Large White Canada. Gra.

Similar names. See *Early Eight-Rowed Yellow Canada.*

Large White Dent. GH Pks.

Large White Flint. Bdg Bui Cam CSC EBC Drr Eic RE Loh Mzy Neb Shw Stk SB.

Similar names. Long White Flint, Improved Large White Flint, Early Large White Flint.

Seedsmen's synonyms. *Sanford,* EBC.

Large Yellow Dent. *Ar* Ger GH Pks.

Large Yellow Flint. CSC EBC C&B Ger Hen Loh Mzy Nef Ptt Pri Shm W&D.

Large Yellow Leaming. Shm. For similar names see *Leaming.*

Late Golden Dent. CSC *Shw.* For similar names see *Golden Dent.*

Leaming. Alr Bak *Brd* Btl Bkt Bow Brk Bgs Bri Brn Bru Bng Buc Brb Bur C&J CSC EBC Cle C&B Crs Cur Chm D&H DD Dun Ebe Ebr Eic Elt Emr Fqr Fst Frd Ger Gdn GH Ggy Gry Grw Ham Hde Hrm Hrn *Hrs* Hrv Hen H&C Hlm J&M J&S Kel K&W Ken Kg Kra Lnr Liv Mgd *Mus* Mau May Min MV Nol OV Old *Pg* HP *Pnc* Pnt Ptt Por Pri Raw Ren Rob Roc Rs Sal S&R S&F *Shw* *S&O* Sie Sim Sox Spf Stk S&H Tat TB Til *Tpk* Trm *Vl* Vau Vk W&D *Wer* Wd Wdr Wyg Yng Y&H.

Similar names. Improved Leaming, Yellow Leaming, Improved Yellow Leaming, Improved Ninety Days Leaming, Improved Early Leaming, Early Leaming, Extra Early Leaming, Early Yellow Leaming, Large Yellow Leaming, Rennie's Leaming, Salzer's Leaming, Northrup, King & Co.'s Minnesota Leaming, Minnesota Leaming, Star Leaming, Gourd Seed Leaming.

Legal Tender. Ber Ebr Fmr *Hde* Iow J&S Kra Lam JL Mgd Neb Rob S&O Shm Spf Stw *Tex* Thr.

Lenocher's Homestead. Iow.

Liberty. CSC Roc *Shw.*

Livingston's Early Golden Surprise. JL. For similar names see *Golden Surprise.*

Livingston's Gold Coin. Cle. For similar names see *Gold Coin.*

Longfellow. Brt Bgg Brk Bdg Bru C&J CSC C&B Crs Cur D&H Ebr Elt Fmr Fqr Fax Ggy Gry Hrm Haw Hen Hop Kei Kra Lam Lnr JL May *JMM* McK Mls NK Old HP Ptt Pot Pri Raw Ren Rob Rs RP Sal S&F Sim Tat Thr Vau Vk W&D Wer Wdr Y&H.

Similar names. Improved Longfellow, Longfellow Eight-Rowed Jersey, Early Longfellow, Yellow Longfellow, Early Yellow Longfellow, Golden Longfellow.

Longfellow Eight-Rowed Jersey. Bng. For similar names see *Longfellow.*

Long White Flint. *Bdg* Thr Wd. For similar names see *Large White Flint.*

Seedsmen's synonyms. *Rare Ripe,* Wd.

McCullough's Champion White Dent. JMM.

Similar names. See *Champion Yellow Dent.*

Mammoth Early Eight-Rowed Flint. D&H.

Similar names. See *Eight-Rowed Yellow Flint.*

Mammoth Eight-Rowed Yellow. Bru Sim.

Similar names. See *Eight-Rowed Yellow Flint.*

Mammoth Early Eight-Rowed Yellow Flint. Ham.

Similar names. See *Eight-Rowed Yellow Flint.*

Mammoth Golden Beauty. Blg. For similar names see *Golden Beauty.*

Mammoth White Columbian. Ar. For similar names see *Pride of Columbia.*

Mammoth White Dent. Liv Min Qkr Sal Trm Wer.

Similar names. Early Mammoth White Dent.

Mammoth White Hite. WS.

Mammoth White Pearl. McM. For similar names see *Champion White Pearl.*

Mammoth White Surprise. Bui Mzy Thr.

Similar names. See *Golden Surprise.*

Mammoth Yellow Field. MWJ Trm. For similar names see *Yellow Field.*

Marlboro's Prolific. Alx. For similar names see *White Prolific.*

Marshfield Yellow Dent. Anb. For similar names see *Yellow Dent.*

Maryland White. Blg G&T.

Similar names. Large Maryland White, Improved Maryland Yellow Dent.

Maryland Yellow Dent. Gry. For similar names see *Maryland White.*

Mastodon. Brk Crs Chm Ewg MWJ J&M Mzy NK Sal Thm Thr Vau Wd.

Similar names. Clark's Mastodon, Clark's Early Mastodon, Clark's Early Yellow Mastodon, Early Mastodon, Improved Early Mastodon, Maule's Improved Early Mastodon, Large Mastodon, Early Yellow Mastodon.

Maule's Improved Early Mastodon. Entered as *Early Mastodon.*

Maule's Klondike. Ham. For similar names see *Klondike.*

Maumee Valley Extra Early Gilhouse. HP.

Mercer. Fmr LB May NK Rob Sal Til.

Similar names. Northrup, King & Co.'s Mercer.

Seedsmen's synonyms. *Rideout Flint*, Sal.

Mexican June. Alx Bak Eic Ggy Gfg Hde Hst *Hly* Shw *Stk* Tex Thm Wlt *Wd.*

Similar names. Large Mexican June, Giant Mexican June.

Michell's Extra Early. D&H.

Michell's Gold Coin. Mhl. For similar names see *Gold Coin.*

Mills' Golden Superior. Ham Mls. For similar names see *Golden Superior.*

Mills' Mammoth Early Eight-Rowed Yellow Flint. Mls.

Similar names. See *Eight-Rowed Yellow Flint.*

Minnesota King. Ber Brn GH Hbt Iow J&M Lam *Lnr* Mgd May NK OV *Old* Rob Sal Til *Tpk Wll.*

Similar names. Northrup, King & Co.'s Minnesota King, Early Minnesota King, Minnesota White Flint, Northrup. King & Co.'s Minnesota White Flint, Minnesota Number Thirteen.

Minnesota Leaming. Fmr NK *Old.* For similar names see *Leaming.*

Minnesota Number Thirteen. Fmr *May.* For similar names see *Minnesota King.*

Minnesota White Flint. Fmr NK Til. For similar names see *Minnesota King.*

Monarch Early White Dent. GH.

Moore & Simon's Poor Man's. M&S. For similar names see *Poor Man's.*

Mortgage Lifter. Anb Ar *Blg* CSC Drm Mie Mls *Shr* Sox.

Similar names. Everitt's Mortgage Lifter, Improved Mortgage Lifter.

Mosby's Prolific. Eic MWJ Shw Stk *Wd.* For similar names see *White Prolific.*

Murdock's Favorite. Pnt. For similar names see *Farmer's Favorite.*

Murdock's Golden Dent. Fmr. For similar names see *Golden Dent.*

Murdock's Ninety Day. DD. For similar names see *Ninety Day.*

Nebraska Gold Mine. Neb. For similar names see *Iowa Gold Mine.*

Nebraska White Prize. Bak Grw Neb.

Similar names. Nebraska Yellow Prize.

Nebraska Yellow Prize. Bak Grw. For similar names see *Nebraska White Prize.*

Seedsmen's synonyms. *Hogue's Yellow Dent*, Bak.

Nelson's Yellow Field. Ggy. For similar names see *Yellow Field.*

New Century Wonder. Iow. For similar names see *Griswold's Wonder.*

Ninety Day. G&T Mns.

Similar names. Ninety Day Yellow, Murdock's Ninety Day.

Ninety Day Yellow. G&F. Nor similar names see *Ninety Day.*

Ninety Days Leaming. Neb. For similar names see *Leaming.*

Norfolk Market. Tat.

Similar names. Tait's Norfolk Market.

Normandy. *Put.*

North Carolina White Prolific. Shw. For similar names see *White Prolific.*

North Dakota Extra Early Prize Taker. *M&S.*

North Dakota Flint. Rob. For similar names see *Dakota Dent.*

North Dakota White Flint. D&H Ewg Gra NK McK Ren Sal Sim SB.

Similar names. See *Dakota Dent.*

North Dakota Yellow Flint. D&H Gra McK NK Sal.

Similar names. See *Dakota Dent.*

Northern Prolific. Ren. For similar names see *White Prolific.*

Northern White Dent. WS.

Similar names. Early Northern White Dent, Large Northern White Dent, Northwestern Dent, Will's Northwestern Dent.

Northrup, King & Co.'s Dakota Dent, Northrup, King & Co.'s Mercer, Northrup, King & Co.'s Minnesota Dent, Northrup, King & Co.'s Minnesota Leaming, Northrup, King & Co.'s Minnesota White Flint. Entered as *Dakota Dent, Mercer, Minnesota King, Minnesota Leaming,* and *Minnesota White Flint.*

North Star Yellow Dent. *Lnr.*

Northwestern Dent. May NK Wll. For similar names see *Northern White Dent.*

Seedsmen's synonyms. *Bloody Butcher,* NK.

O'Connell's Early. Sox.

Seedsmen's synonyms. *Farmer's Reliance,* Sox.

Ohio Early Gold Mine. HP. For similar names see *Iowa Gold Mine.*

Old Cabin Home. Lan.

Oldham County Yellow. WS.

Old Virginia. Frd. For similar names see *Virginia White Dent.*

One Hundred Day. D&H.

Similar names. Early One Hundred Day Bristol, One Hundred Day Bristol.

One Hundred Day Bristol. Fst G&T Hen J&S Mhl M&S.

Similar names. See *One Hundred Day.*

Owen's Red Cob. Gdn. For similar names see *Red Cob.*

Oxblood Red Dent. Sal.

Page's Iowa Gold Mine, Page's Improved Leaming. Entered as *Iowa Gold Mine* and *Leaming.*

Paragon. Gra.

Pearce's Early Prolific. McK. For similar names see *Pearce's Prolific.*

Pearce's Prolific. D&H.

Similar names. Pearce's Early Prolific.

Pedrick's Perfected Golden Beauty. Entered as *Golden Beauty.*

Peerless White Dent. H&P. For similar names see *White Dent.*

Pennsylvania Eight-Rowed Early Yellow Flint. Bui.

Similar names. See *Pennsylvania White Dent.*

Pennsylvania Long Early Yellow Flint. Lan.

Similar names. See *Pennsylvania White Dent.*

Pennsylvania White Dent. Wlt.

Similar names. Pennsylvania Yellow Dent, Pennsylvania Long Early Yellow Flint, Pennsylvania Eight-Rowed Early Yellow Flint.

Pennsylvania Yellow Dent. Wlt. For similar names see *Pennsylvania White Dent.*

Philipps' Pere. JMP.

Pierson's Eureka. Prn. For similar names see *Henderson's Eureka.*

Poor Land. Gfg. For similar names see *Poor Man's.*

Poor Man's. Alx.

Similar names. Moore & Simon's Poor Man's, Poor Land.

Powell's Improved White Pearl. Entered as *White Pearl.*

Prehistoric. Brk Del Evr Frd Iow MWJ JL Vk.

Pride of Canada. May. For similar names see *Early Eight-Rowed Yellow Canada.*

Pride of Columbia. Brd.

Similar names. Mammoth White Columbian.

Pride of Nishna. Rtk Rs *Tex.*

Similar names. Ratekin's Queen of Nishna, Queen of Nishna.

Pride of the North. Alr Anb Bai *Bak* Brd Btl Bkt Ber Bow Brk Bgs Bri Brn Bng Buc Bur Col Crs Cur Dlw DD Ebe Ebr Ewg Fmr Fqr Fer Frd GH Grw Ham Hrn Hrv Iow J&M Kel Kg Kos Kra Lam Lnr LB Liv JL May Mic MV Mzy NK OV Old Pac *Fg* HP Pnt Ptt Por Pri Qkr Ren Roc RP Sal Shw S&O Shm Sie Sim Sox Stw S&H TB Thr Til *Tpk* Trm Vau Vk Vin Wer Wll Wdr *Y&H.*

Similar names. Sibley's Pride of the North, Early Pride of the North.

Seedsmen's synonyms. *Golden Dent,* Buc Roc. *Early Golden Dent,* Bgs Fer LB. *Improved Early Golden Dent,* Koe. *Queen of the Prairie,* Fmr Ptt S&H Wdr. *Yellow Dent,* Lam Vin.

Prince Charles White. Shw. For similar names see *St. Charles.*

Prize Medal Southern White Snowflake. Bui.

Similar names. See *Southern White Snowflake.*

Profit. Fmr Iow *Spf.*

Prosperity. Fmr.

Pure Gold. Anb.

Queen of the Field. *Lnr* Vau.

Queen of Nishna. Rtk. For similar names see *Pride of Nishna.*

Queen of the North. Sal Wdr. For similar names see *Queen of the Prairie.*

Queen of the Prairie. Bdg Bng CSC EBC C&B Fmr Hen Ptt Raw S&H W&D. Wdr.

Similar names. Queen of the North.

Queen of the Yellows. *WS.*

Race Horse Yellow Dent. *Ham.*

Rare Ripe. Kg Wd.

Seedsmen's synonyms. *Long White Flint,* Wd.

Ratekin's Gold Standard Yellow, Ratekin's Queen of Nishna. Entered as *Gold Standard Yellow* and *Queen of Nishna.*

Red Blazed. Hrv.

Similar names. Early Red Blazed, Yellow Blazed, Blue Blazed.

Red Cob. Drr Ewg Frd J&S Mns Mau JMM Til.

Similar names. Owen's Red Cob, Fitche's Antique Red Cob, Red Cob Mammoth White Dent.

Red Cob Mammoth White Dent. *WS.*

Red Driver. WS.

Red King Philip. CSC. For similar names see *King Philip.*

Reid's Yellow Dent. *Iow* Old. For similar names see *Yellow Dent.*

Reliance Yellow Dent. Old. For similar names see *Yellow Dent.*

Rennie's B. B. *Ren.*

Rennie's Early Giant White Dent. Ren.

Similar names. See *Early Giant White Dent.*

Rennie's Leaming. Entered as *Leaming.*

Rhode Island White Cap Flint. Brt Pot.

Similar names. See *White Cap Yellow Dent.*

Rideout. Sal Til.

Seedsmen's synonyms. *Mercer*, Sal.

Riley's Favorite. Btl *Rob* Roc *Vl* WS Wyg.

Similar names. See *Farmer's Favorite.*

Robb's Improved Calico Dent. Entered as *Calico Dent.*

Rural White Flint. CSC Hrv Hen Iow Kei Ren Sim W&D Wdr.

Similar names. Large Early Rural White Flint.

Rustler. GH NK.

St. Charles. Eic Gdn.

Similar names. St. Charles White, Prince Charles White.

St. Charles White. Ar DD Pnt *S&O Stk* Tpk.

Similar names. See *St. Charles.*

Salzer's All Gold, Salzer's Golden Combination, Salzer's King of the Earliest, Salzer's Leaming, Salzer's North Dakota White Flint, Salzer's North Dakota Yellow Flint, Salzer's South Dakota Yellow Flint. Entered as *All Gold, Golden Combination, King of the Earliest, Leaming, North Dakota White Flint, etc.*

Salzer's Early Giant White Dent. Sal.

Similar names. See *Early Giant White Dent.*

Sanford. CSC EBC Chm Elt Ewg Gra Ggy McK Ptt Raw Rob Thr Wdr.

Similar names. Early Sanford, Improved Sanford, White Sanford.

Seedsmen's synonyms. *Large White Flint*, EBC.

Shaker's Early Yellow Dent. CSC. For similar names see *Yellow Dent.*

Shannon's Extra Early Prolific. MWJ. For similar names see *White Prolific.*

Shannon's Large Early. MWJ.

Shaw's Improved. Alx CA MWJ McM.

Sheep Tooth. Chm Dlw.

Similar names. Improved Early Sheep Tooth, White Sheep Tooth, Southern White Sheep Tooth.

Seedsmen's synonyms. *Southern Fodder*, Drr.

Sibley's Pride of the Market. Entered as *Pride of the Market.*

Siegel's First Crop. Entered as *First Crop.*

Silver King. Kg. For similar names see *Gold King.*

Silver Mine. Ber Hly NK. For similar names see *Iowa Gold Mine.*

Silver Triumph. Ber. For similar names see *Triumph.*

Sioux White Pearl. Sox. For similar names see *Champion White Pearl.*

Sixty Day Flint. Ham.

Similar names. Hammond's Sixty Day Flint.

Smut Nose. D&H Fmr Hrv NK.

Seedsmen's synonyms. *Early Red Blazed*, Fer.

Snowflake. *Ber* Gdn *Shr.* For similar names see *Southern White Snowflake.*

Snow White Dent. *Alx* CSC *D&H* Mau *Pg Vau.*

Similar names. See *White Dent.*

South Dakota Yellow Flint. D&H Ren Sal. For similar names see *Dakota Dent.*

Southern Horse Tooth. Bng C&B GH Hen J&S Mzy W&D.

Similar names. Virginia Horse Tooth, White Horse Tooth, Yellow Horse Tooth, Improved Early Horse Tooth.

Southern Prolific. Lan. For similar names see *White Prolific.*

Southern Sweet Mammoth. *Ren.*

Southern White. Brk Fqr Gry Pri Rs *Y&H.*

Similar names. Southern White Gourd, Giant Southern White.

Southern White Gourd. Lan.

Similar names. See *Southern White. Gourd Seed Golden Dent.*

Southern White Sheep Tooth. Drr Rce. For Similar names see *Sheep Tooth.*

Southern White Snowflake. Alx Cam Eic G&T Hst Jac Pnt Wd.

Similar names. Alexander's Southern White Snowflake, Buist's Prize Medal Southern White Snowflake, Improved Southern White Snowflake, White Snowflake, Snowflake, Prize Medal Southern White Snowflake.

Squaw. Fle NK.

Similar names. Extra Early Squaw.

Star Leaming. D&H Iow. For similar names see *Leaming.*

Steelman's Early Hickory King. Entered as *Early Hickory King.*

Sturgeon's White. WS.

Sweet Pearl. Wer. For similar names see *Champion White Pearl.*

Tait's Norfolk Market. Entered as *Norfolk Market.*

Tennessee Mammoth White. *Shw.*

Tennessee Mammoth Yellow. Shw.

Three-Eared Corn of 1900. Sal.

Three Thousand Dollar Corn. Sal.

Towl's Sea Island Prolific. *Alx.*

Triple Income Corn. Sal.

Triumph. Fmr LB *May* NK *Old* Wll.

Similar names. Silver Triumph, Golden Triumph.

Twelve-Rowed Early Yellow Canada. C&J.

Similar names. See *Early Eight-Rowed Yellow Canada.*

University Number Thirteen. NK.

Up-to-Date Calico Dent. Ber. For similar names see *Calico Dent.*

Vail's New Wonder Golden Dent. T&B.

Similar names. See *Griswold's Wonder.*

Virginia Horse Tooth. Thr.

Similar names. See *Virginia White Dent, Southern Horse Tooth.*

Virginia Mammoth White. Raw.

Virginia White Dent. Kg *Wd.*

Similar names. Old Virginia, Virginia Horse Tooth.

Walker White Dent. *Alx.*

Walker Yellow Dent. H&P Wd. For similar names see *Yellow Dent.*

Washakum Yellow Flint. Sal.

Waterloo Early Dent. Ham.

Similar names. Waterloo Extra Early Dent.

Waterloo Extra Early Dent. Bur Ebr J&S Stw.

Similar names. See *Waterloo Early Dent.*

Wernich's Sweet Pearl. Entered as *Sweet Pearl.*

Wernich's Ten Weeks. Wer.

Western White Dent. Roe.

Similar names. Western Yellow Dent.

Western Yellow Dent. *Kel* May Roe.

Similar names. See *Western White Dent.*

White Australian. Pir.

White Canada. Ewg Gra.

Similar names. See *Early Eight-Rowed Yellow Canada.*

White Cap Early Yellow Dent. Bui HP.

Similar names. See *White Cap Yellow Dent.*

White Cap Yellow Dent. Brd Bkt *Ber* Bru Buc Bur CSC Col Cur Dlw D&H DD RE Ewg Fmr Frd Gra Ham *Hde* Hrs Hrv Hen Hop Iml J&S *Kei* Kg Koe Kos *Lnr* Liv Mgd May Mls NK OV Old *Pg Por* Qkr Ren Rob Roe Rs *S&R* Shw Sim Spf SB Stw S&H Tex *Tpk* Wd Wer Yng.

Similar names. Hammond's White Cap Yellow Dent, White Cap Early Yellow Dent, Rhode Island White Cap Flint.

White Dent. Cam Gdn Hst J&S McM Pir WS.

Similar names. Improved White Dent, Early White Dent, Hammond's White Dent, Bonanza White Dent, Peerless White Dent, Snow White Dent. See also *Western White Dent*, *Wisconsin White Dent*, *Northern White Dent*, etc.

White Elephant. *Mic.*

White Face Dent. Brn.

White Flint. Bou Cle C&B CF Gra Gng Hen MWJ MV Rob Roc Shm Sox Thr.

Similar names. Early White Flint, Gilbert's White Flint, Houghton's Silver White Flint. See also *Large White Flint*, *Rural White Flint*, etc.

Seedsmen's synonyms. *Old Hominy*, MV Sox. *Pearl*, Bou.

White Hickory King. Bui Hly Shw Yng. For similar names see *Hickory King.*

White Horse Tooth. Lan. For similar names see *Southern Horse Tooth.*

White Kansas King. Anb Btl. For similar names see *Kansas King.*

White Majestic. *Wd.*

White Perfection. Hrn.

Similar names. Harnden Seed Co.'s White Perfection.

White Prolific. G&T *MWJ.*

Similar names. Blunt's White Prolific, Cocke's White Prolific, Dungan's White Prolific, Kent White Prolific, North Carolina White Prolific, Blunt's Prolific, Cocke's Prolific, Crane's Prolific, Marlboro's Prolific, Mosby's Prolific, Northern Prolific, Shannon's Extra Early Prolific, Landreth's Southern Prolific.

White Rockdale. Eic Hst Stk.

White Sanford. Brd Bgs Brb Crs D&H *Lam* May Ree Rs.

Similar names. See *Sanford.*

White Sheep Tooth. Lan. For similar names see *Sheep Tooth.*

White Snowflake. Ber Kg. For similar names see *Southern White Snowflake.*

White Surprise. Gdn. For similar names see *Golden Surprise.*

Seedsmen's synonyms. *Extra Early Pearl*, Gdn.

Will's Dakota Flint, Will's Gehu Seventy Day, Will's Northwestern Dent. Entered as *Dakota Flint*, *Gehu Seventy Day*, and *Northwestern Dent.*

Winn's Hybrid. Hrm K&W.

Wisconsin Silver. Wer. For similar names see *Wisconsin White Dent.*

Wisconsin White Dent. *Brn* CSC *Ebe* GH Gra J&M Kos *May Ren* Rob Shw Sim SB Thr Wer.

Similar names. Early Wisconsin White Dent, Wisconsin Yellow Dent, Wisconsin White Flint, Wisconsin Silver.

Wisconsin White Flint. Cur. For similar names see *Wisconsin White Dent.*

Wisconsin Yellow Dent. CSC GH Sim.

Similar names. See *Wisconsin White Dent.*

World's Gold Medal. *Evr.*

Yankee. WS.

Similar names. Eight-Rowed Yankee, Extra Early Yellow Yankee, Extra Early Large Yellow Yankee.

Seedsmen's synonyms. *Yellow Flint*, Sox.

Yard Long Yellow Dent. Evr. For similar names see *Yellow Dent*

Yellow Blazed. Y&H. For similar names see *Red Blazed.*

Yellow Canada. Ewg Gra Kei *Pg* Pot Rs SB.

Similar names. See *Early Eight Rowed Yellow Canada.*

Yellow Clarage. Liv.

Similar names. Early Yellow Clarage.

Yellow Creole. Eic Stk.

Yellow Dent. Bng RE Gng Lam Pir Sim SB Tpk.

Similar names. Hogue's Yellow Dent, Holmes' Yellow Dent, Marshfield Yellow Dent, Reid's Yellow Dent, Walker Yellow Dent, Reliance Yellow Dent, Barnard's Early Yellow Dent, Shaker's Early Yellow Dent, Golden Row Yellow Dent, Yard Long Yellow Dent, Improved Large Yellow Dent, Ford's Sure Crop Yellow Dent. See also *Golden Dent, Champion Yellow Dent, Cloud's Yellow Dent*, etc.

SEEDSMEN'S SYNONYMS. *Pride of the North*, Lam Vin.

Yellow Early Rose. TB. For similar names see *Early Rose.*

Yellow Field. Brw.

SIMILAR NAMES. Nelson's Yellow Field, Mammoth Yellow Field.

Yellow Flint. Bai Brd Bur Cle Hbt LB MV Sox.

SIMILAR NAMES. Early Yellow Flint, Improved Yellow Flint.

SEEDSMEN'S SYNONYMS. *Early Canada*, LB. *Yankee*, Sox.

Yellow Giant Gourd. Hly. For similar names see *Gourd Seed Golden Dent.*

Yellow Golden Dent. Hly. For similar names see *Golden Dent.*

Yellow Horse Tooth. RE Ewg Ren Sim SB.

SIMILAR NAMES. See *Southern Horse Tooth.*

Yellow IXL Golden Dent. Sal. For similar names see *Golden Dent.*

Yellow Leaming. Ar Cox Ewg Liv JL JCM JMM Mzy Qkr S&O.

SIMILAR NAMES. See *Leaming.*

Yellow Longfellow. Emr RE SB. For similar names see *Longfellow.*

Yellow Spanish. Ger.

CORN (POP CORN).

Amber Rice. Brk Bur. For similar names see *Rice.*

Black Diamond. Buc Roc.

Boys' Favorite. Evr.

Buckbee's Snowball. Entered as *Snowball.*

Burpee's Tom Thumb. Entered as *Tom Thumb.*

California Yellow. Brk Bur Pac.

Cook's Improved Egyptian. Entered as *Egyptian.*

Dye. Iow.

Early Amber Rice. Hen. For similar names see *Rice.*

Early White Rice. Hp. For similar names see *Rice.*

Egyptian. Cok Ggy.

SIMILAR NAMES. Cook's Improved Egyptian.

SEEDSMEN'S SYNONYMS. *White Rice*, Ggy.

Eight-Rowed White. Brk JMM *Wea.*

Excelsior. *Hrm.*

German White Rice. H&P. For similar names see *Rice.*

Golden Dwarf. *Eas.*

Golden Tom Thumb. Brk *Bur* Pg. For similar names see *Burpee's Tom Thumb.*

Golden Yellow. McM.

Illinois Snowball. Old Vau. For similar names see *Snowball.*

Improved White Rice. Entered as *White Rice.*

Mapledale Prolific. Alr Bng Buc *CE* CSC Col D&H Evr *Fmr* Frd Gls Ham Hrv Hlm Hop Iow J&S Kg Kra Lnr Mau May Nef Pg Ree Roc Shw Spf S&H Vau *Wll* Wd WS.

Miniature. Iow.

Monarch. MWJ.

SEEDSMEN'S SYNONYMS. *White Rice*, Col.

Monarch Red Rice. Fld. For similar names see *Rice.*

Monarch White Rice. Ber CA Fld Frd Ham Hde Iow Kg Lnr Mau *Shw* Spf.

SIMILAR NAMES. See *Rice.*

Nonpareil White. Ptt. For similar names see *White.*

Old Homestead White Rice. Brk. For similar names see *Rice.*

Page's Striped Rice. Entered as *Striped Rice.*

Pearl. Fst Fld Gng Gry Hrm Iml MWJ McM Pac Sim.

SIMILAR NAMES. See *White Pearl.*

SEEDSMEN'S SYNONYMS. *Silver Lace*, Iml. *Small White*, Bow.

Pride of Hiram. Hse.

Queen's Golden. Alr Anb Ar Btl Bkt Brk Bng Buc Brb Bur Brr *CE* CSC Col Cur D&H Del DD D&C *Drr* Emr Evr *Fmr* Fst Fld Frd *GN* Grw Ham Hde Hrn Hbt H&C Hly Hlm Hop Hse Iml Iow MWJ J&S Kg Lnr *LB* Mgd Mns Mau May JCM JMM McK Mhl Nef NI Old Pg HP JMP Pir Pne Ptt Pri Raw Ree Ree Rob Roe Sal SC *Shr* Sie Spf Stw S&H Tat Tem Tex Til Trm Vau *Vk* Wer Wll Wd Wdr WS Wyg.

Red Beauty. Buc CSC CA D&H Ham H&C Mau *May* Roc *Shr* Tem.

SIMILAR NAMES. Ruby Beauty, Striped Beauty.

Red Rice. Bur DD Fmr Lnr Pac Ptt. For similar names see *Rice.*

Rice. Blg Bow Bgs Bng Brb Ebe Fer Gry TG Hrm Iml MWJ Ken LB *Loh* May NI *Por Rtk Rt* Sie Tat Til Tpk Vin Wd Wdr WS Y&H.

SIMILAR NAMES. Yellow Rice, Red Rice, Monarch Red Rice, Monarch White Rice, Old Homestead White Rice, German White Rice, Improved White Rice, Early White Rice, White Rice, Amber Rice, Early Amber Rice, Page's Striped Rice.

Ruby Beauty. Chl. For similar names see *Red Beauty.*

Salzer's Silver Ball. Entered as *Silver Ball.*

Silver Ball. Sal. For similar names see *Silver Lace.*

Silver Lace. Brb Brk Bur *CE* CSC Cur DD Ggy TG Hop Iml J&S Kos Mau JMM Nef Pg Ptt Ree Ree Tat *Vk* Wer.

SIMILAR NAMES. Salzer's Silver Ball, Silver Ball.

SEEDSMEN'S SYNONYMS. *Pearl*, Iml. *White Pearl*, Tat.

Small White. Bow *Por.*

SEEDSMEN'S SYNONYMS. *Pearl*, Bow.

Smooth White. CSC Lan. For similar names see *White.*

Snowball. Alr Buc Evr *Fmr* GN Roe.

SIMILAR NAMES. Buckbee's Snowball, Illinois Snowball.

SEEDSMEN'S SYNONYMS. *White Rice*, Alr.

Striped. Buc D&H May Ren Spf.

SIMILAR NAMES. Striped Beauty, Page's Striped Rice.

SEEDSMEN'S SYNONYMS. *Variegated*, Buc D&H.

Striped Beauty. DD. For similar names see *Red Beauty, Striped.*

Striped Rice. Iow Ree.

SIMILAR NAMES. Striped, Striped Beauty, Page's Striped Rice.

Tattooed. Jer Ren.

SIMILAR NAMES. Tattooed Yankee.

Tattooed Yankee. Brb *CE* Eas Pne *Wea.* For similar names see *Tattooed.*

Tom Thumb. Bur.

SIMILAR NAMES. Golden Tom Thumb, Burpee's Tom Thumb.

Variegated. Buc Cok D&H Roe.

SEEDSMEN'S SYNONYMS. *Striped*, Buc D&H.

White. Emr *Nol* Prn W&D.

SIMILAR NAMES. Smooth White, White Market, Nonpareil White.

White Market. Bai. For similar names see *White.*

White Pearl. Ar Btl *CE* CSC C&B Cox DD Drr Elt *Fmr* Hde Hen H&C Hop Lnr Mas May JCM JMM McK Pri Raw Ree SC *Shr* Tat Thr Trm *Wea* Wll Wyg.

SIMILAR NAMES. Pearl.

SEEDSMEN'S SYNONYMS. *Silver Lace*, Tat.

White Rice. Alr Anb Ar Btl Bkt Bel Brk Bur Brr *CE* CSC C&B Col Cox Del DD Drr Elt Emr RE Evr Ewg Fmr Fst Gls Gra Ggy Grw Hen Hrn Hrs Hrv Hst

Haw Hbt H&C Hly Hop J&S Koe Kra Lam Lan Lnr Liv Mgd Mns Mas JCM JMM *McK* McM Mhl Pac *Pg* JMP Pir Ptt Poo Qkr Raw Ren Ree Rob Sal SC Shw Sim Stw S&H Tem Tex *Tlh* Thr Trm Vau Vk *Wa* Wll Wyg.

Similar names. See *Rice*.

Seedsmen's synonyms. *Egyptian*, Ggy. *Monarch*, Col. *Rat Tooth*, C&B. *Snowball*, Alr.

Wisconsin Eight-Rowed. Lnr.

Wisconsin Prolific. Fst.

Yellow Rice. Ggy. For similar names see *Rice*.

CORN (SWEET CORN).

Acme. *Fmr* May.

Similar names. May's Acme.

Allen's Golden. K&W.

Alneer's Extra Early Columbia, Alneer's Improved Evergreen. Entered as *Extra Early Columbia* and *Evergreen*.

Amazement. *GN*.

Amber Cream. Buc Brb Bur CSC Cle Mnd Mau *Pg* Roe.

Aspinwall. Pri.

Asylum. *CE* CSC Cle Ebe *Hlm* J&S Lan Mzy Pri Ree Thr.

Similar names. Early Asylum.

Seedsmen's synonyms. *Early Mammoth*, J&S. *Burr's*, Bdg. *Excelsior*, Bdg. *Mammoth Sugar*, J&S.

Ballard. Alr Crs Kra Lnr Wyg.

Similar names. Ballard's Early, Ballard's Early Chicago Market, Ballard's Red Cob.

Seedsmen's synonyms. *Chicago Market*, Kra Lnr Wyg. *Early Chicago Market*, Alr. *Perry's Hybrid*, Crs.

Ballard's Early. *CE* CSC Cle DD GH Rob Y&H. For similar names see *Ballard*.

Seedsmen's synonyms. *Chicago Market*, Rob Sal. *Perry's Hybrid*, Sal.

Ballard's Early Chicago Market. Buc Roe.

Similar names. See *Ballard*, *Chicago Market*.

Ballard's Red Cob. Ebe. For similar names see *Ballard*.

Baltimore Market. M&S. For similar names see *Extra Early Baltimore*.

Banana. Fqr. For similar names see *Banana Cream*.

Banana Cream. CSC Wll.

Similar names. Will's Banana Cream, Farquhar's Banana, Banana.

Bearsfoot. Brt EBC.

Best of All. Buc Roe *Stk*.

Similar names. Buckbee's Best of All.

Black Mexican. Alx Anb Bai Brd Brt Btl Ber Blg Bow *Bgg* Brk Bdg Bgs Bri Brn *Brn* Bng Buc Bui Brb Brr Bur C&J *Cam* CE CSC EBC Cle C&B CF Cox Crs Cur D&H Del Drr Dun Eas Ebe *Ebr* Elt Emr RE Evr Fmr Fqr Fer Frd Ger Gls GH Gra Gry G&T TG Hns Ham Hrs Hrv Hst Haw Hen Hlm H&P Iow J&M J&S *Ins* Kei K&W Ken Kg Kos Kra Lam Lan Lnr LB JL Loh *Mgd* Man Mas Mau May JCM JMM Mhl Mls MV M&S Nef Nol NK Pac Pg HP JMP Pir Pne Pnt Por Pot Pri Qkr Raw Ree Rob Roe Rs RP Sal S&R S&F Shw S&O Shm Sim Sox Spf S&W Tat Thm Thr Til Trm T&B Vau Vk Vin *Wat* Wea Web Wer Wd Wdr WS Y&H.

Similar names. Black Sugar, Vaughan's Black Sugar, White Mexican, Extra Early White Mexican, Mexican, Early Mexican.

Black Sugar. Mzy *Nol* Prn Vau W&D. For similar names see *Black Mexican*.

Seedsmen's synonyms. *Mexican*, Prn.

Bloomsdale Sugar. Lan. For similar names see *Sugar*.

Bonanza. Buc J&S *Put* Roe Spf.

Similar names. Early Bonanza, Simon's Early Bonanza.

Boston Market. Cox D&H Vin.

Similar names. Early Boston Market.

Seedsmen's synonyms. *Crosby's Early Sugar*, Cox Vin. *Crosby's Extra Early*, Raw.

Brazilian. Btl.

Breck's Premier, Breck's Zigzag. Entered as *Premier* and *Zigzag*.

Buckbee's Best of All, Buckbee's Early Sunrise, Buckbee's First of All, Buckbee's Hickox. Entered as *Best of All*, *Early Sunrise*, *First of All*; and *Hickox*.

Buck Mountain Early Table. *M&S.*

Burbank's Early. K&W. For similar names see *Burbank's Early Maine*.

Burbank's Early Maine. Entered as *Early Maine*.

Burlington. Bur C&B Cur Fst Fer Grw Hen *Hlm* Ptt Por Roc S&R Vk Wd WS.

Similar names. Early Burlington, Burlington Hybrid, Early Burlington Hybrid.

Seedsmen's synonyms. *Early Adams*, Buc C&B Fer Hen Por Roc, etc. *Extra Early Adams*, Bur Cur Grw Ptt Vk. *Large Early Adams*, Wdr.

Burlington Hybrid. *Bak* Ber Blg Cle Fst GH H&C J&S Liv JL Mns M&S Pnt Rob.

Similar names. See *Burlington*.

Seedsmen's synonyms. *Early Adams*, H&C.

Burpee's Early Cosmopolitan, Burpee's Early Fordhook, Burpee's Early Sheffield, Burpee's First of All, Burpee's Sheffield. Entered as *Early Cosmopolitan*, *Early Fordhook*, *Early Sheffield*, *First of All*, and *Sheffield*.

Burr's Evergreen. Entered as *Evergreen*.

Burr's Improved. CSC.

Champion. *Bel* C&J *CE* CSC EBC CF *Crg* Evr Ggy GH TG Lan Lnr NI Ptt Poo Pot Pri Ree Rob Y&H.

Similar names. See *Early Champion*.

Chicago Market. Brd *CE* Cur Del GH Kra Lnr Rob Sox Vau Wer Wyg.

Similar names. Early Chicago Market, Ballard's Early Chicago Market.

Seedsmen's synonyms. *Ballard*, Kra Lnr Wyg. *Ballard's Early*, Rob Sal. *Perry's Hybrid*, Sal.

Childs' Honey Dew. Entered as *Honey Dew*.

Clarke County Champion. Shw. For similar names see *Early Champion*.

Clark's Nonesuch, Clark's Early Evergreen, and Clark's Old Colony. Entered as *Nonesuch*, *Early Evergreen*, and *Old Colony*.

Colossal. Roc.

Similar names. Price & Reed's Extra Early Colossal Extra Early Colossal.

Columbus Market. Liv JL Mzy Ree.

Concord. Wer. For similar names see *Moore's Concord*.

Cooper's Large Early Shoe Peg. Entered as *Large Early Shoe Peg*.

Corn-Bearing. CSC.

Cory. Anb Brt Btl Ber Bru Bur *CE* D&C Dun Eas Fqr Fst Ggy Hrs Hrv Hly Hlm Jer K&W Ken Kos LB Mns Mau JMM Min Mzy HP Prn Pne Ptt Pot Raw Ren Ree Rs Sal S&O S&H *Tem* AGT Til Y&H.

Similar names. Early Cory, Extra Early Cory, Dwarf Extra Early Cory, Shumway's Extra Early Cory, Improved Cory, Mammoth Cory, Extra Early Mammoth Cory, White Cob Cory, Large White Cob Cory, Mammoth White Cob Cory, Extra Early White Cory, Early White Cory, Early Mammoth White Cory, Red Cob Cory, Early Red Cob Cory, Extra Early Red Cob Cory.

Cosmopolitan. *Lan Vk.*

Similar names. Early Cosmopolitan, Burpee's Early Cosmopolitan.

Country Gentleman. Alx Alr Anb Brd Brt Btl Bkt Ber Blg Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Bur C&J Cam CE CSC EBC Cle C&B Col CF Cox Crg Crs Cur CA Chm Dlw D&H Del DD D&C Drr Ebe Ebr Eic Elt RE Evr Ewg

Fmr Fqr Fer Fld Frd Ger Gls Gdn GH Gra Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hst Hen H&C Hly Hlm Hop Hse Hnt H&P Iml Iow Jac MWJ J&M J&S Jns Kei Kel K&W Ken K&F Kg Kos Lam Lan Lnr Liv JL Loh Mnd Mgd Man PM Mns Mas Mau May JCM JMM McK McM Mhl Min MV M&S Mzy Neb Nol NK OV Old Pac Pg HP JMP Pir Prn Pne Pnt Ptt Por Pot Pri Qkr Raw Ree Ren Rce Rim Rob Roc Rt Rs RP Sal S&R SC S&F S&B Shw S&O Shm Sie Sox Spf SB Stw S&H S&W Tat Tem Tex TB Thm Thr *Tlh* Til *Tpk* Trm Vl Vau Vk Vin Wat Wea Web W&D Wer Wd Wdr WS Wyg Yng Y&H.

Similar names. Henderson's Country Gentleman.

Seedsmen's synonyms. *Improved Ne Plus Ultra*, C&J Elt Ham Kra Sim. *Improved Shoe Peg*, D&C K&F Mau Rt. *Little Gem*, Ptt. *Ne Plus Ultra*, Brr Bng Fld Ggy Ptt. *Quaker Sweet*, Ggy Ptt. *Shoe Peg*, Brr Fld Ree RP Ptt Spf Tem.

Craig's Champion. Entered as *Champion.*

Crosby. Brk Bgs *CE* Fmr Ggy Hrm Mnd Nol NK Rce Stk Thr *Y&H.*

Similar names. See *Crosby's Early.*

Crosby's Early. Anb Bai Brd Brt Btl Ber Bow Bgg Brk Bdg Bri Brn Bru Bng Buc Bui Brb Brr C&J CE CSC EBC C&B Col Cox Crs Cur Chm Del Drr Dun Ebe Ebr *Eic* Elt Emr RE Evr Fqr Fax Fer Fle Ger Gls GH Gra Gng Ggy Gry Grw TG Hns Ham Hrm Hrs Hrv Hen Hlm Hop Hnt H&P Iow Jer J&M Jns Kei Kel K&W Ken Kg Lam Lea Lnr LB JL Loh Mgd Man Mas May JCM JMM McK McM Mic MV Mzy Neb Nef NI Old Pac Pg HP Pne *Pnt* Por Pot Pri Pug Raw Ren Rim Rob Roc Rs RP S&R S&F S&O Shm Sim Sox SB S&W Thb Til T&B Vl Vau Vk Vin Wea Web W&D Wd Wdr WS Y&H.

Similar names. Crosby's Early Dwarf, Crosby's Early Twelve-Rowed, Crosby, Extra Early Crosby, Improved Early Crosby.

Seedsmen's synonyms. *Boston Market*, Cox Vin.

Crosby's Early Dwarf. Eic. For similar names see *Crosby's Early.*

Crosby's Early Twelve-Rowed. Bur Fst Pnt.

Similar names. See *Crosby's Early.*

Crosman's Genesee Sweet. Entered as *Genesee Sweet.*

Darch & Hunter's First of All. Entered as *First of All.*

Darling Sweet. Kei. For similar names see *Early Sweet.*

Seedsmen's synonyms. *Sugar Productive*, Kei.

Dessert. M&S.

Dobbins' Early Evergreen. Entered as *Early Evergreen.*

Don. W&D.

Dreer's First of All. Entered as *First of All.*

Dwarf Champion. Bdg. For similar names see *Early Champion.*

Dwarf Extra Early Adams. CSC EBC TG Hlm.

Similar names. See *Early Adams.*

Dwarf Extra Early Cory. Hrm. For similar names see *Cory.*

Earliest of All. RE Vk.

Similar names. Vick's Earliest of All.

Early Adams. Bak Ber Bou Bow Bui Bur Cam *CE* CSC EBC Cle C&B CF Crg Crs CA Drm Eic Evr Fst Fer GH Ggy G&T TG Ham Hde Hrm Hrn Hen H&C H&P Jac Kei Lan Liv PM Mns May JCM JMM McK McM MV Mzy OV Pir *Pnt* Por Rce Rob Roc S&R Stk S&W Tat Tem Thr Tpk Trm Vl Vau Wlt Wd WS.

Similar names. Improved Early Adams, White Early Adams, Giant Early Adams, Second Early Adams, Extra Early Adams, Dwarf Extra Early Adams, Improved Large Adams, Large Adams, Large Early Adams, Schwill's Improved Large Adams.

Seedsmen's synonyms. *Burlington*, Buc C&B Fer Hen Por Roc, etc. *Burlington Hybrid*, H&C. *Large Adams*, Shw.

Early Asylum. TG. For similar names see *Asylum.*

Early Bonanza. Alr Hrn *Lnr* M&S Pnt Rob Shm. For similar names see *Bonanza.*

Early Boston Market. Eas Ggy. For similar names see *Boston Market.*

Early Burlington. Bui Eic. For similar names see *Burlington.*

Seedsmen's synonyms. *Extra Early Adams*, Bui Eic.

Early Burlington Hybrid. G&T. For similar names see *Burlington.*

Early Champion. Brd Bkt Blg *Bgg* Brw Bur Cle C&B Col DD Drr *Fqr* Fld Hrn Hen Iow J&S Jns Kra JL Mgd PM *Mau* Mic MV M&S Mzy Neb *Nol* Old JMP Prn *Pnt* Rs Sal Sie Sox Spf Tem Thr *Tlh* Vau W&D Wdr.

Similar names. Improved Early Champion, Early Dwarf Champion, Dwarf Champion, Clarke County Champion, Price & Reed's Champion, Champion.

Early Chicago Market. Alr Gra Shm. For similar names see *Chicago Market.*

Seedsmen's synonyms. *Ballard*, Alr.

Early Colony. Brd. For similar names see *Old Colony.*

Early Concord. *CE* Fqr GH Gfg Lan *May* Tpk *Vl* Wea.

Similar names. See *Moore's Concord.*

Early Cory. Brd *Bel* Bgg Bng Brr C&J Cam C&B Crs Cur DD Fax Gdn Gry Hop H&P Jac *RHJ* J&S Kel Lnr Mnd OV Pac Por Pri S&R S&F Sie S&W Tem Thr Trm Vl Vau Vin Wea.

Similar names. See *Cory.*

Early Cosmopolitan. Bur. For similar names see *Cosmopolitan.*

Early Dakota. Wll.

Early Dwarf Champion. Koe. For similar names see *Early Champion.*

Early Egyptian. *Cam* Shw. For similar names see *Egyptian.*

Early Eight-Rowed. Bow Bui Elt H&P Mhl Pri Vin.

Similar names. See *Eight-Rowed.*

Seedsmen's synonyms. *Early Sugar*, Iml. *New England*, Mhl.

Early Eight Weeks. Man.

Early Evergreen. Brd *Bkt* Bow Brk CSC EBC Drr Ebe Fer Gls Hbt J&S Jns Kra Lan *Lnr* Loh *Mns* May JMM Mhl MV M&S Neb OV Old *Pri* Ree Rce Rob Rs *Sie* Sim *Sox SB* S&H Thr *Tpk* Vau.

Similar names. See *Stowell's Evergreen.*

Early Fordhook. *Blg Bri* Bur CSC Cle Col Frd Hbt Hlm H&P Lam Pg Ree *Rce* Shw Wdr.

Similar names. Burpee's Early Fordhook.

Early Giant. SB *Tlh.*

Similar names. Improved Giant, Giant, Lohrman's Early Giant, Moore & Simon's Early Giant.

Early June. Wll.

Similar names. Will's Early June.

Early La Crosse. Sal.

Early Large Cob. Lan.

Early Large Eight-Rowed. Cle TG J&S Min Rob W&D.

Similar names. See *Eight-Rowed.*

Seedsmen's synonyms. *New England Sugar*, J&S.

Early Maine. Brt Brk Brb Brw C&J *CE* Chl CSC EBC Cle Cur *Ebr* Emr Fqr GH TG Jer J&S Jns Kra Mzy Ptt Pri Raw Rce Rob S&F Sie Thr Wea Wdr Y&H.

Similar names. Burbank's Early Maine, Burbank's Early.

Seedsmen's synonyms. *June Twenty-First*, Chl.

Early Mammoth. Bkt Blg Bow Brk Bri Bru Bng Bui Brw *Cam CE* CSC Cle C&B CF Crg Crs Drm Ger GH G&T TG Hrn Hst H&C *Hlm* H&P Iml MWJ J&M J&S Kel Ken Koe *Lan* Mnd Man Mns May McM Mhl MV Mzy Nol Pac Pnt Ptt Pri Rce Rob Shw Sox Spf S&W Thr Til Vl *Wat* W&D Wd Wdr Y&H.

Similar names. See *Mammoth.*

Seedsmen's synonyms. *Asylum*, J&S.

Early Mammoth White Cory. Buc Crs. For similar names see *Cory.*

Early Maple Sugar. Bel. For similar names see *Sugar.*

Early Marblehead. Anb Bdg Bgs Buc Bui Bur Cle Crs Dun RE Fst GH Hrm K&W Mau JCM McM Mzy NI Pri Ren Rob Roc Sal SB TB Tpk Vin *Y&H.*

Similar names. See *Marblehead.*

Early Marblehead Mammoth. EBC. For similar names see *Marblehead.*

Early Market. *H&C* McK Ren *Vl.*

Similar names. Gentry Early Market, McMillan's Early Market, Perkins' Early Market, Schwill's Early Market.

Early Melrose. CSC. For similar names see *Melrose.*

Early Metropolitan. *Bel* CSC Hen Hlm Roc *Shw.*

Similar names. See *Metropolitan.*

Early Mexican. Ewg. For similar names see *Black Mexican.*

Early Minnesota. Alr Anb Bai Brd Brt Btl Bel Blg Bow Bgg Brk Bgs Bri Brn Bru Bng Buc Bui Bur Brr Brw C&J CE *Chl* CSC Cle C&B CF Cox Crs Cur Chm Del DD Ebe *Ebr* Elt RE Evr Fmr Fqr Fst Fer Frd Ger GH Gra Ggy G&T TG Ham Hrm Hrn Hrv Hen Hbt H&C Hlm Hop Hse H&P Iow Jer RHJ J&M Jns Kei Kel Ken K&F Kg Kos Kra Lam Lea Lnr LB Liv JL Loh Mgd Man Mas Mau May JCM JMM Mic Min Mzy Neb Nef *Nol* NI NK OV *Pac* Pg Pks HP JMP Pir Prn Pnt Ptt Pod Por Pot Pri Pug Ree Rob Roc Rs RP Sal S&R SC Shm Sie Sim Sox Spf SB S&H Tem TB AGT Til Tpk Trm T&B Vl Vau Vk Vin Web W&D Wer Wdr Wyg Y&H.

Similar names. Extra Early Minnesota, Minnesota.

Early Monarch. Ebe.

Similar names. Ohio Monarch.

Early Narragansett. Bui.

Similar names. Extra Early Narragansett.

Early Pee and Kay. Bow Pri Y&H. For similar names see *Pee and Kay.*

Early Perfection. Pg.

Similar names. Price's Early Perfection, Grey's Perfection, Low's Perfection, Price & Reed's Perfection.

Early Red Cob Cory. Brd Brk Bui CSC Del Gra Hns Hen Man MV Neb Qkr Rob Sim *Sox* Web Wer Yng.

Similar names. See *Cory.*

Early Red Marblehead. CSC. For similar names see *Marblehead.*

Early Sheffield. Alr Bkt *Bel* Bur CSC *Ewg* Hlm J&S Mau May JMM OV *Ree* Sie Sim *Tpk* Yng.

Similar names. See *Sheffield.*

Early Sugar. Stk. For similar names see *Sugar.*

Seedsmen's synonyms. *Eight Rowed,* Iml Stk.

Early Sunrise. Ber *Buc* Iow.

Early Surprise. Shw.

Early Sweet or Sugar. Crs Fer Haw Iml Pks Shw Stk Thb.

Similar names. Large Early Sweet, Darling Sweet, Crosman's Genesee Sweet, Quaker Sweet, Genesee Sweet.

Seedsmen's synonyms. *Sugar,* Crs Fer Pks Stk.

Early Tom Thumb. CSC Hns.

Similar names. Extra Early Tom Thumb, Price & Knickerbocker's Extra Early Tom Thumb.

Early Triumph. Bdg Bui. For similar names see *Triumph.*

Early Vermont. Bkt CSC Pri Rob.

Similar names. Extra Early Vermont.

Early White Cory. Brt Ber *Bgg* Brk Bri Bru Buc Bui Brb CSC Cle Crs Chm Dlw Del Fmr Gra Hde Hop Jns Kra Lam Mnd McK Neb Pnt RP Sim Spf Trm Web.

Similar names. See *Cory.*

Early Windsor. May OV *Tpk.*

Early Yankee. *Nol.*

Eastman's Early. Eas.

Similar names. Fottler's Early, Ford's Early, Harvey's Early, Hance's Early, Henderson's Early, Lackey's Early, Leet's Early. See also *Burbank's Early, Crosby's Early, Kendel's Early Giant, Early Adams, Shaker's Early, Stabler's Early*, etc.

Eclipse. Btl Pri.

Similar names. Price & Reed's Eclipse.

Egyptian. Anb Ar Brd Btl Bkt Bgg Brk Bdg Bgs Bng Buc Bui Bur *CE* CSC *EBC* Cle CF Crs Cur Chm Drr Ebe Elt Emr RE Evr Fqr Fst Frd GH Ggy Gry G&T TG Hns Hrn *Hrs* Hlm Hse H&P Iml MWJ J&S Kei Kg Lam Lan Lnr Liv JL Mnd Man Mau May JCM JMM Mhl MV M&S Mzy Nef Nol NK HP Prn Ptt Pot Pri Raw Ree Ren Rce Rob Roc RP Sal *Shw* Sim Sox Spf S&H S&W Tat Til Tpk Thr Trm *Vl* Vk Wat Web W&D Wd WS.

Similar names. Hyde's Egyptian, Large Egyptian, Late Egyptian, Early Egyptian.

Seedsmen's synonyms. *Washington Market*, Brd Bur J&S Raw Rce Vk, etc.

Eight-Rowed. CSC EBC Iml Lan Tat.

Similar names. Early Eight-Rowed, Large Eight-Rowed, Early Large Eight-Rowed.

Emerson's First Crop. Emr. For similar names see *First Crop.*

Everbearing. Buc Mau Roc Shw.

Evergreen. Alr Brd Bri Brn Buc Brr C&J Chl Crg Ebr Fld Gra Ggy Hrm Hnt Lan JL Mnd Mzy Rce Rob Roc S&B Stw Trm.

Similar names. See *Stowell's Evergreen.*

Everitt's Excelsior. Evr. For similar names see *Potter's Excelsior.*

Excelsior. Bkt Drw Elt TG Hrv Lan Mau. For similar names see *Potter's Excelsior.*

Seedsmen's synonyms. *Asylum*, Bdg. *Burr's*, Bdg. *Mammoth Sugar*, Bdg. *Squantum*, Bkt Elt Drw Lan.

Extra Early. Cok Gng Hnt Jns Stk.

Similar names. Michell's Extra Early, Market Gardener's Extra Early, Potter's XX Early.

Extra Early Adams. Alx Anb Bak Brd Btl Bkt Blg *Bri* Buc Bui Bur Cam CE CSC Cle CF Crg Crs Cur *DD* Drr Drm Ebr Eic Fer Gdn GH Gfg G&T Grw Hns Hde Hrm Hrn Hst H&C *Hlm* H&P Iml Jac MWJ J&M J&S Kos *Lam* Lan Lnr Liv Mgd PM Mns Mau May JCM JMM McM Mhl Min MV M&S Neb Nef Pac HP Pir Pnt Ptt Ren Rce Rob Roc Sal SC Shw S&O Shm Sox Spf Stk Stw Tat Tem Thm Thr Trm Vl Vau Vk Wat Web Wer Wd Wdr WS Yng.

Similar names. See *Early Adams.*

Seedsmen's synonyms. *Burlington*, Bur Cur Grw Ptt Vk. *Early Burlington*, Eic Vk.

Extra Early Baltimore. G&T.

Similar names. Baltimore Market.

Extra Early Beverly. H&P Lan.

Extra Early Challance. Koe.

Extra Early Colossal. Pri. For similar names see *Colossal.*

Extra Early Columbia. Alr.

Similar names. Alneer's Extra Early Columbia.

Extra Early Concord. Gfg.

Extra Early Cory. Alr Bai Bel *Bow* Bdg Buc *Cam* Chl EBC Cox Drm Ebr Elt Emr Gls TG Iow J&M *Kg* Liv JL Loh *May* JCM *Nol* NK *Pac* JMP Pug Roc RP Shm Tat T&B *Wat* W&D Wd Wdr.

Similar names. See *Cory.*

Extra Early Crosby. CF DD G&T J&S K&W Lan Mau *Mel* Mhl M&S Ptt Raw Spf Stw Thm Tpk Wat.

Similar names. See *Crosby's Early.*

Seedsmen's synonyms. *Boston Market*, Raw.

Extra Early Evergreen. *Blg* Sie S&W. For similar names see *Stowell's Evergreen.*

Extra Early Maine. CF. For similar names see *Early Maine.*

Extra Early Mammoth. DD. For similar names see *Mammoth.*

Extra Early Mammoth Cory. Kg. For similar names see *Cory.*

Extra Early Marblehead. CF Ebe Shm. For similar names see *Marblehead.*

Extra Early Minnesota. Ar Bdg *Cam* EBC D&H Fld Hns Lan McK Ren Stw.

Similar names. See *Early Minnesota.*

Extra Early Narragansett. Tpk. For similar names see *Early Narragansett.*

Extra Early Red Cob Cory. CF TG *Mic* Mls *Sie* Sox Spf.

Similar names. See *Cory.*

Extra Early Rockford Market. Shm. For similar names see *Rockford Market.*

Extra Early Sheffield. *Buc* Shw Shm. For similar names see *Sheffield.*

Extra Early Tom Thumb. Hen Pri. For similar names see *Early Tom Thumb.*

Extra Early Vermont. Buc Frd Hbt Hse *Lur* Roc.

Similar names. See *Early Vermont.*

Extra Early White Cory. EBC Col CF Emr Gng TG Hns Hrm Haw K&F JL Mas *Mic* Mls NK HP Ren Roe SC Sox TB.

Similar names. See *Cory.*

Extra Early White Mexican. Mic. For similar names see *Black Mexican.*

Farquhar's Banana, Farquhar's First Crop. Entered as *Banana* and *First Crop.*

Ferry's Early Evergreen, Ferry's Evergreen. Entered as *Early Evergreen* and *Evergreen.*

First Crop. Fqr Ggy Raw S&F.

Similar names. Emerson's First Crop, Moore & Simon's First Crop, Reliance First Crop, Farquhar's First Crop.

First Early Neck. Blg Mns Min.

Similar names. Gillespie's First Early Neck.

First in the Market. TG H&P *Stk.*

Similar names. Hammond's First in Market.

Seedsmen's synonyms. *Imitation Sugar*, H&P.

First of All. Bkt *Bgg* Bri Bru Buc Bur Brr Cle Col Crs Cur D&H Del D&C Drr Fmr Fst Fld GH Gng GN Ham H&C Hlm Hop J&S *Lur* Liv Man Mau JCM McK Mhl Mls Neb Nef Old Pg Qkr Ren Ree Rob Rs Sal S&O Shm Sim SB Tem Vau Wer Wdr Yng.

Similar names. Buckbee's First of All, Burpee's First of All, Dreer's First of All, Mills' First of All, Salzer's First of All, Simmers' First of All, Improved First of All.

Seedsmen's synonyms. *Red Cob Cory*, SB.

Five X. Wll.

Similar names. Will's Five X.

Ford's Early. CSC Frd Hrs Hbt Iml Rt. For similar names see *Eastman's Early.*

Ford's Improved Mammoth. Entered as *Mammoth.*

Forsythe's Favorite. Btl. For similar names see *Trucker's Favorite.*

Fottler's Early. S&F. For similar names see *Eastman's Early.*

French Honey. M&S. For similar names see *Honey.*

Genesee Sweet. Crs. For similar names see *Early Sweet.*

Gentry Early Market. Wd. For similar names see *Early Market.*

Giant. *Loh* Mau Shm. For similar names see *Early Giant.*

Giant Early Adams. Wdr. For similar names see *Early Adams.*

Gillespie's First Early Neck. Entered as *First Early Neck.*

Gold Coin Evergreen. Hlm. For similar names see *Stowell's Evergreen.*

Golden Bantham. *Brr.*

Golden Hybrid. Eas.

Gold Medal. Mls.

Grey's Perfection. Gry. For similar names see *Early Perfection.*

Hammond's First in the Market, Hammond's Improved Stowell's Evergreen, Hammond's Mammoth. Entered as *First in the Market, Stowell's Evergreen,* and *Mammoth.*

Hance's Early. Liv. For similar names see *Eastman's Early.*

Harmon. Hrm.

Harvey's Early. Hrv Vk. For similar names see *Eastman's Early.*

Hastings' Yexo. Entered as *Yexo.*

Henderson's Country Gentleman, Henderson's Early Metropolitan. Entered as *Country Gentleman* and *Early Metropolitan.*

Henderson's Early Sugar. Lam Shw. For similar names see *Sugar.*

Henderson's Sugar. Bgs CSC Cle C&B Chm Frd Hen *Man.*

Similar names. See *Sugar.*

Hickox. Brd Bow Brk Bgs Bru Buc Bui C&J *CE* CSC EBC Cle C&B CF Crs Cur Chm Ebe Elt Emr RE Ewg Fqr Fer Ger GH Gra G&T TG Hrs Hen H&P *Lam* Lan Lnr *Liv* JL Loh *May* MV Mzy Neb Nol NK Pg HP Ptt Pot Pri Raw Rce Rob Roc RP S&O Shm Sox SB Tat Thr Thb Til Vl Vau Vk Vin W&D Wdr Y&H.

Similar names. Buckbee's Hickox, Hickox Improved, Hickox Canner.

Hickox Canner. Sal. For similar names see *Hickox.*

Hickox Improved. Entered as *Hickox.*

Holmes' Improved Gold Coin Evergreen, Holmes' Premo. Entered as *Gold Coin Evergreen* and *Premo.*

Holmes' No. 1. Hlm.

Honey. Frd Hlm J&S.

Similar names. French Honey, Honey Sweet, Honey Dew, Childs' Honey Dew.

Honey Dew. Chl CF Mhl. For similar names see *Honey.*

Honey Sweet. Alr Buc CSC Ewg Roc Shw Sim Tem. For similar names see *Honey.*

Hyde's Egyptian. Entered as *Egyptian.*

Imitation. Blg.

Seedsmen's synonyms. *First in the Market,* H&P.

Improved Cory, Improved Early Adams, Improved Early Champion, Improved Crosby's Early, Improved Evergreen, Improved First of All, Improved Giant, Improved Large Adams, Improved Large Mammoth, Improved Ne Plus Ultra, Improved Ruby, Improved Shoe Peg, Improved Stowell's Evergreen, Improved Triumph. Entered as *Cory, Early Adams, Early Champion, Early Crosby, Evergreen, First of All,* etc.

Indiana Wonder. Evr.

Similar names. Kendel's Early White Wonder, Philipps' Wonder.

June Market. May.

June Twenty-First. Chl.

Seedsmen's synomyms. *Early Maine,* Chl.

Kendel's Early Giant. Alx Brd Bkt *Bel* Blg Bri *Bru* Bng Bur C&J CSC EBC Col *CF* Cur D&H Drr RE Frd Gls Ggy Ham Hrs Hbt *H&C* Hlm Hse H&P *RHJ* J&S Jns Ker Kel Ken Lam *Lnr* Liv JL *Loh* Mns Mau JMM Mhl Nol NK OV Pg *Por* Raw Ren Rob Roc Rt Rs *S&R* Shw Sie Sim Spf S&H Til *Tpk* Vl Vk *Wat* Wdr WS Yng.

Similar names. Kendel's Giant, Kendel's Large Early, Kendel's Early White Wonder.

Kendel's Early White Wonder. Ken.

Similar names. See *Kendel's Early Giant*, *Indiana Wonder.*

Kendel's Giant. Gra Ree Tat. For similar names see *Kendel's Early Giant.*

Kendel's Large Early. Shm. For similar names see *Kendel's Early Giant.*

Kendel's Large Early Giant. *Buc.*

Keystone Wonder. *Tll.*

Lackey's Early. Fqr Ggy. For similar names see *Eastman's Early.*

Landreth's Early Market. Entered as *Early Market.*

Landreth Sugar. Bri Dlw H&P MWJ Lan Rim TB Trm Vl.

Similar names. See *Sugar.*

Seedsmen's synonyms. *Old Colony*, Hrn.

Large Adams. Shw. For similar names see *Early Adams.*

Seedsmen's synonyms. *Early Adams*, Shw.

Large Early Adams. *Eic* Hst MWJ. For similar names see *Early Adams.*

Seedsmen's synonyms. *Burlington*, Wdr.

Large Early Shoe Peg. *M&S.*

Large Early Sweet. Haw. For similar names see *Early Sweet.*

Large Egyptian. Ebr. For similar names see *Egyptian.*

Large Eight-Rowed. Bdg Fst Thr. For similar names see *Eight-Rowed.*

Large Excelsior. Nol. For similar names see *Potter's Excelsior.*

Large Late Mammoth. Blg Brw EBC C&B Crs Vin Y&H.

Similar names. See *Mammoth.*

Large Mammoth. Min Shw. For similar names see *Mammoth.*

Large Sugar. Shw. For similar names see *Sugar.*

Seedsmen's synonyms. *Mammoth Sugar*, Shw.

Large White Cob Cory. *Bel* Bur Pks Ree Yng. For similar names see *Cory.*

Late Concord. M&S. For similar names see *Moore's Concord.*

Late Egyptian. EBC. For similar names see *Egyptian.*

Late Mammoth. Bkt Bow Brk Bgs Bri Bng *Cam CE* CSC Cle CF Crg DD Elt Emr Fst GH Gfg G&T TG Hrn Hrv Hst Hlm H&P Iml MWJ J&M J&S Jns Kel Lan Mnd Mgd Man PM Mns May Mls MV M&S Neb Nol NK Pac JMP Pnt Ptt Qkr Rob Rt RP S&O Sie *Sox* Spf S&W Tat Thr *Tll* Vau Vk *Wat* Web Wd WS.

Similar names. See *Mammoth.*

Seedsmen's synonyms. *Mammoth Sugar*, Gfg.

Leet's Early. Hrv Sie. For similar names see *Eastman's Early.*

Little Gem. EBC Drr Mhl Ptt.

Seedsmen's synonyms. *Country Gentleman*, Ptt. *Improved Ne Plus Ultra*, Mls. *Ne Plus Ultra*, Drr EBC Ptt. *Quaker Sweet*, Mls. *Shoe Peg*, Drr Mls Mhl Ptt.

Livingston's Evergreen, Livingston's White Cob Evergreen. Entered as *Evergreen* and *White Cob Evergreen.*

Livingston's Red Cob Evergreen. Liv.

Similar names. See *Stowell's Evergreen.*

Livingston's Silver Coin. Liv.

Lohrman's Early Giant. Loh. For similar names see *Early Giant.*

Low's Perfection. Ren. For similar names see *Early Perfection.*

McKenzie's Northern Success. Entered as *Northern Success.*

McMillan's Early Market. McM. For similar names see *Early Market.*

Main Crop. M&S.

Malakhoff. *Frd.*

Mammoth. Alx Bai Brd Ber Bou Bdg Brn Bru Buc C&J Cam CE Chl Col Cox Cur D&H Drr Ebe Eic RE Evr Ewg Fqr Fer Frd Gdn Gra Gng Gfg Grw Ham Hen H&C Hly Hnt Iow Jac Kei Ken Kg Kos Kra Lam Lnr LB Liv JL Mau

JCM JMM Mhl Mzy Nef *Nol* NI *Pac* Prn Por Pot Pri Raw Ren Ree Roc Sal S&R SC S&F Shw S&O Shm Sim Sox SB Stw S&H Tex Thm Til Tpk Trm T&B W&D Wer Wlt Wdr Yng.

Similar names. Hammond's Mammoth, Maule's Mammoth, Shumway's Mammoth, Ford's Improved Mammoth, Large Mammoth, Late Mammoth, Large Late Mammoth, Improved Large Mammoth, Mills' Late Mammoth, Early Mammoth, Extra Early Mammoth.

Seedsmen's synonyms. *Asylum*, Bdg. *Burr's*, Bdg. *Excelsior*, Bdg. *Large Sugar*, Shw. *Late Mammoth*, Gfg.

Mammoth Cory. Yng. For similar names see *Cory.*

Mammoth Evergreen. Anb Ar Btl Cox Del Hns *Loh.*

Similar names. See *Stowell's Evergreen.*

Mammoth Southern Sweet. RE.

Mammoth White Cob Cory. Alr Brd Btl Bkt Blg Bow Brk Bri Brn Brw CE CSC *EBC* Col Cur Chm Dlw D&H Ebe RE Evr *Fmr* Fer Frd Gls GH Ggy *Gry* Hns Ham Hrn Hrs Hlm H&P Iml J&S Jns Kra Lam Lan Lnr *Liv* JL Loh *Lou* Mgd Mau *JCM* JMM MV M&S Neb NK Old Pg HP Pnt Por Pri *Rtk* Raw Ree *Rim* Rob Rs S&R Shw Shm Sie Sim Sox SB S&H Thr AGT *Tlh* Til Vau Vk *Wdr* WS Yng.

Similar names. See *Cory.*

Manhattan. Thr.

Marblehead. *CE* Ebr Emr Mnd May MV Ree *Sox* Thr Vin.

Similar names. Early Marblehead, Early Red Marblehead, Early Marblehead Mammoth, Marblehead Mammoth, Extra Early Marblehead.

Marblehead Mammoth. Ggy Raw Rs. For similar names see *Marblehead.*

Market Gardener's Extra Early. Shm. For similar names see *Extra Early.*

Maule's XX. Mau.

Maule's Mammoth. Entered as *Mammoth.*

May's Acme. Entered as *Acme.*

Melrose. Bkt Ebr Nol Thr.

Similar names. Early Melrose.

Metropolitan. Bkt *Bgg Bdg Buc* Bur *EBC Drr Ebr Fqr* Frd J&S *Jns Lan Mau* May Ptt *Rob* S&W Thr *Vau* Wdr.

Similar names. Early Metropolitan, Henderson's Early Metropolitan.

Mexican. Ggy Prn. For similar names see *Black Mexican.*

Seedsmen's synonyms. *Black Sugar*, Prn.

Michell's Delicious. Mhl.

Michell's Extra Early. McK. For similar names see *Extra Early.*

Mills' Earliest Large. Mls.

Mills' First of All, Mills' Late Mammoth. Entered as *First of All* and *Late Mammoth.*

Minnesota. *CE* Ebr Emr *Hlm* J&S Mnd Nol Ree Roc S&O *Sox* S&W Thr.

Similar names. See *Early Minnesota.*

Moonarchie. Mzy Wdr.

Moore's Concord. Bkt Bgg Brk Brn C&J CSC Cle Cox Emr Ken Mnd Mgd JCM MV Nol NK Pg Pnt Rob Rs RP Sal S&F Shm *Sox* Spf Thr Web.

Similar names. Moore's Early, Moore's Early Concord, Early Concord, Late Concord, Concord.

Moore's Early. NI. For similar names see *Moore's Concord.*

Moore's Early Concord. Alr Brd Bow Bdg Bgs Buc Bui *CE* EBC C&B CF Crs Cur Chm Ebe Elt Ewg Fer Ggy Gry TG Hen H&P Kos Lea Lnr LB *May* JMM Mzy HP Ptt Pri Raw Ren Ree Roc Rs Sim S&W Thb Til Vk Vin W&D Wdr.

Similar names. See *Moore's Concord.*

Moore & Simon's Early Evergreen. Entered as *Early Evergreen.*

Moore & Simon's Early Giant. M&S. For similar names see *Early Giant.*

Moore & Simon's First Crop. M&S. For similar names see *First Crop.*

Mosby's Prolific. Eic. For similar names see *Russell's Prolific.*

Ne Plus Ultra. Bdg Bng Buc Bui Bur Brr *CE* Chl CSC EBC Cle C&B CF Cok Ebe G&T TG Ham Hen Hrm *K&W* Kra May Mls MV Nol Ptt Pri Ren Ree Roc Shm Sim *Sox* Tat Thr.

Similar names. Improved Ne Plus Ultra.

Seedsmen's synonyms. *Country Gentleman*, C&J Elt Ham Kra Sim Ptt, etc. *Little Gem*, Drr EBC Ptt Mls. *Quaker Sweet*, Chl Ggy Ptt Ren Mls. *Shoe Peg*, Mls Bui Bur Drr Hen Thr, etc. *Shoe Peg Evergreen*, Ebe. *Zigzag* Hen.

New England. Mhl.

Similar names. New England Early.

Seedsmen's synonyms. *Early Eight-Rowed*, Mhl. *Early Large Eight-Rowed*, J&S.

New England Early. Bui Haw M&S. For similar names see *New England.*

New York's Best. Pg.

Ninety Day Red Cob. Blg.

Similar names. Owen's Red Cob.

Nonesuch. Alr Bgs Bru *CSC* Col Crs Del DD Gra Hlm Ken Mnd Mau Mzy NK Ren SC Shw Sim S&H Tat Tem Yng.

Similar names. Clark's Nonesuch.

Norfolk Market. Tat.

Northern Success. *McK.*

Northrup, King & Co.'s XXXX. NK.

Northrup, King & Co.'s Zigzag Evergreen. Entered as *Zigzag Evergreen.*

North Star. GN.

Northwest. McK.

Seedsmen's synonyms. *Old Squaw*, McK.

Oakview Early Market. Fer *Jns Vau.*

Ohio Monarch. JMM. For similar names see *Early Monarch.*

Ohio Red Cob Evergreen. HP. For similar names see *Stowell's Evergreen.*

Old Colony. Bkt Brn Bru Bng Buc Bur Brw *CE* CSC EBC Cle Crs Cur Chm *Ebr* Ewg Fmr Fer Frd GH Gra Hrn Hen Iml J&M Jns Kra Lam Lnr LB *Liv* Loh May NK Pg JMP *Por* Ree Rob Roc *S&R* Vau Wdr.

Similar names. Early Colony.

Seedsmen's synonyms. *Landreth Sugar*, Hrn.

Owen's Red Cob. Jac. For similar names see *Ninety Day Red Cob.*

Pee and Kay. *CE* EBC Cle Crs Gra TG *Lnr* Liv Ptt Ree Rob Wdr.

Similar names. Early Pee and Kay, Price & Knickerbocker's Early Pee and Kay.

Peep O'Day. *Fmr* Old Vau.

Perkins' Early Market. Bui. For similar names see *Early Market.*

Perry's Early Hybrid. Bgs Shm. For similar names see *Perry's Hybrid.*

Perry's Hybrid. Ar Brd Brt Btl Bkt Bel Blg Bow Brk Bdg Bri Brn Bru Bng Buc Bui Bur Brr Brw C&J *CE* CSC EBC Cle C&B CF Cox Crg Crs Cur Chm Dlw Del DD Ebe Ebr Elt Emr RE Evr Ewg Fmr Fqr Fst Fer Gls GH Gra Gng Ggy TG Hns Hrm Hrs Hen H&C Hlm Hop H&P J&S Jns Kei Ken Kra Lan Lnr JL *Loh* Mnd Man Mns Man May JCM JMM MV Mzy Neb Nol NK *Pac* Prn Pnt Ptt Por Pot Pri Pug Raw Ren Ree Rob Roc Rs RP Sal S&R SC S&O Sim Sox Spf SB S&H S&W TB Thr Thb Til T&B Vl Vau Vk Vin Wea Web W&D Wer Wdr Y&H.

Similar names. Perry's Early Hybrid.

Seedsmen's synonyms. *Ballard*, Crs. *Ballard's Early*, Sal. *Chicago Market*, Sal.

Philadelphia Evergreen. M&S. For similar names see *Stowell's Evergreen.*

Philipps' Wonder. HP. For similar names see *Indiana Wonder.*

Portland. Fmr NK.

Potter's Excelsior. Blg *Bgg* Brk Bdg Buc Bui Bur Brw *CE* CSC EBC Cle CF Cox Crs Cur *Drr* Eas Ebe Emr Fqr Fst Fax Frd GH Ggy Gry TG Hrm Hrs Hlm J&S K&W Kra Prn Pne Pot Raw Ree Rob Roc Rs S&F Tat Thr Thb Vk *Wat* Wea Wdr.

Similar names. Large Excelsior, Everitt's Excelsior, Shumway's Excelsior, Excelsior, Potter's XX Early, Potter's Sugar.

Seedsmen's synonyms. *Squantum*, Bui Bur Fqr J&S Mhl Raw, etc.

Potter's XX Early. Pot. For similar names see *Extra Early*, *Potter's Excelsior.*

Potter's Sugar. Bdg. For similar names see *Potter's Excelsior.*

Seedsmen's synonyms. *Squantum*, Bdg.

Premier. Brk.

Similar names. Breck's Premier.

Premo. *Alx Brd Bru Evg Ggy Hlm Thr Vk Wea.*

Price & Knickerbocker's Early Pee and Kay, Price & Knickerbocker's Extra Early Tom Thumb. Entered as *Pee and Kay* and *Extra Early Tom Thumb.*

Price & Reed's Champion, Price & Reed's Eclipse, Price & Reed's Extra Early Colossal. Entered as *Champion*, *Eclipse*, and *Extra Early Colossal.*

Price & Reed's Perfection. Pri. For similar names see *Early Perfection.*

Price's Early Perfection. M&S. For similar names see *Early Perfection.*

Price's 1900. Pri.

Pride of Chenango. Pg.

Prosperity Evergreen. H&P. For similar names see *Stowell's Evergreen.*

Quaker Sweet. Chl CSC Ptt Tat. For similar names see *Early Sweet.*

Seedsmen's synonyms. *Country Gentleman*, Ggy Ptt. *Improved Ne Plus Ultra*, Mls. *Little Gem*, Mls Ptt. *Ne Plus Ultra*, Bur Chl Ggy Ptt Ren. *Shoe Peg*, Bur Chl Mls Ptt Ren.

Quincy Market. *Brt* Brk Ggy.

Red Cob Cory. *Btl* Bgs *Bri* Cle Chm Ebe RE *Fmr* GH Grw Jns Kei Lan McK *S&O* Stw Wll *Y&H.*

Similar names. See *Cory.*

Seedsmen's synonyms. *First of All*, SB.

Reliance First Crop. M&S. For similar names see *First Crop.*

Rhode Island. Pot.

Similar names. Rhode Island Bearfoot.

Rhode Island Bearfoot. Emr. For similar names see *Rhode Island.*

Rice's Early Evergreen. Entered as *Early Evergreen.*

Riley's Favorite. Btl. For similar names see *Trucker's Favorite.*

Rockford Market. Buc Roc.

Similar names. Extra Early Rockford Market.

Roslyn Hybrid. Bkt Bdg Bui C&J CSC EBC CF Drr Fst Hen J&S Mhl M&S Nol Ptt *Pri* Thr Wat W&D Wdr.

Ruby. Buc Bur Hlm Roc.

Similar names. Improved Ruby.

Russell's Prolific. Bkt Bgs Bri CSC Cok Frd GH TG Hse HP Rob Shw Vk.

Similar names. Mosby's Prolific.

St. Louis Market. *Pnt.*

Salzer's First of All. Entered as *First of All.*

Schwill's Early Market. Shw. For similar names see *Early Market.*

Schwill's Early Surprise. *Shw.*

Schwill's Improved Large Adams. Entered as *Large Adams.*

Second Early Adams. Blg. For similar names see *Early Adams.*

Shaker's Early. Bkt Bgg Bgs CE CSC EBC Cle CF Crs Cur Chm D&H DD Drm Ebr RE Evr Fst Ggy GH TG Hrn Hrs Hen Hlm Hop Hnt Iml J&S Kel *Lnr* Liv

JL Loh Lon Mns May JCM JMM Min MV Neb HP Pnt Pri Ren Ree Rob Rs SC S&O Sie *Sox* Thr Til Tpk Yng Y&H.

Similar names. Shaker's Extra Early, Shaker's Large Early.

Shaker's Extra Early. Spf. For similar names see *Shaker's Early.*

Shaker's Large Early. Bru Buc Bur Brw Ebe Haw Qkr Roc Wdr.

Similar names. See *Shaker's Early.*

Sheffield. Frd TG Mgd *Sim* Vk.

Similar names. Burpee's Sheffield, Burpee's Early Sheffield, Early Sheffield, Extra Early Sheffield.

Shoe Peg. Buc Bui Chl CSC Cox Ewg GH TG H&C J&S *K&W* K&F Mau Min Pnt Ptt Roc TB.

Similar names. Improved Shoe Peg, Shoe Peg Evergreen.

Seedsmen's synonyms. *Country Gentleman*, D&C K&F Mau Rt Ree Tem, etc. *Improved Ne Plus Ultra*, Mls. *Little Gem*, Drr Mhl Mls Ptt. *Ne Plus Ultra*, Chl Cox Drr Hen J&S Ptt, etc. *Quaker Sweet*, Chl Mls Ren Ptt. *Zigzag*, Hen.

Shoe Peg Evergreen. Ebe. For similar names see *Shoe Peg, Evergreen.*

Seedsmen's synonyms. *Ne Plus Ultra*, Ebe.

Shumway's Excelsior. Shm. For similar names see *Potter's Excelsior.*

Shumway's Extra Early Cory, Shumway's Mammoth, Shumway's Western Queen. Entered as *Extra Early Cory*, *Mammoth*, and *Western Queen.*

Simmers' First of All. Entered as *First of All.*

Simon's Early Bonanza. Entered as *Early Bonanza.*

Snowflake. *Thm.*

Southern Express. Eic.

Southern White Snowflake. *Alx.*

Squantum. Brt Bkt Blg Bgg Bdg Bui Brr C&J CSC EBC Cle CF Cur *Drr* Elt Emr Fqr GH TG Hrs Hen J&S Lan Mas Mhl Pot Roc S&O S&W Tat Wea W&D Wdr.

Seedsmen's synonyms. *Excelsior*, Bkt Elt Drw Lan. *Potter's Excelsior*, Bui Bur Fqr J&S Raw Vk, etc. *Potter's Sugar*, Bdg.

Stabler's Early. Brt Buc *CE* CSC EBC Cox Drr Ggy GH G&T TG Hen Hlm J&S Mau Ptt Pri Ree Roc W&D Wdr.

Similar names. Stabler's Extra Early, Stabler's Hybrid, Stabler's Pedigree, Stabler's Nonpareil.

Stabler's Extra Early. Alr Bui Bur Cur PM Mhl M&S Neb.

Similar names. See *Stabler's Early.*

Stabler's Hybrid. Cle. For similar names see *Stabler's Early.*

Stabler's Nonpareil. Mhl M&S. For similar names see *Stabler's Early.*

Stabler's Pedigree. *Blg* CSC Fst Hlm Raw Ree Rob Y&H.

Similar names. See *Stabler's Early.*

Stowell's Evergreen. Alx Alr Anb Ar Bai Brd Brt Btl Bkt Bel *Ber* Blg Bou Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brw Cam CE CSC EBC Cle C&B Col CF Cox Crs Cur CA Chm Dlw D&H Del DD D&C Drr Drm Dun Eas Ebe Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Frd Ger Gls Gdn GH Gng GN Ggy Gry Gfg G&T TG Ham Hrm *Hrn* Hrs Hrv Hst Hen Hbt H&C Hly Hlm Hop H&P Iml Iow Jac MWJ J&M J&S Jns Kei Kel K&W Ken K&F Kg Koe Kos Kra Lam Lea Lnr LB Liv JL Loh Lon Mnd Mgd Man PM Mns Mas Mau May JMM McM Mic Mhl MV Mzy Neb Nef Nol NI NK OV Old Pac Pg HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Qkr *Rtk* Raw Ree Ren Ree Rim Rob Roe Rt Rs RP Sal S&R SC S&F S&B Shw S&O Shm *Sie* Sim Sox Spf Stk SB S&H S&W Tat Tem Tex TB Thm Thr Thb AGT *Tlh* Til Trm T&B Vl Vau Vk Vin Wat Web W&D Wer Wlt Wd Wdr WS Wyg Yng Y&H.

Similar names. Evergreen, Improved Stowell's Evergreen, Hammond's Improved Stowell's Evergreen, Burr's Evergreen, Ferry's Evergreen, Livingston's Evergreen, Prosperity Evergreen, Philadelphia Evergreen, Shoe Peg Evergreen, Mammoth Evergreen, Improved Evergreen, Alneer's Improved Evergreen, Holmes' Improved Gold Coin Evergreen, Ohio Red Cob Evergreen, Livingston's Red Cob Evergreen, Livingston's White Cob Evergreen,, Zigzag Evergreen, Northrup, King & Co.'s Zigzag Evergreen, Zigzag, Breck's Zigzag, Early Evergreen, Dobbin's Early Evergreen, Ferry's Early Evergreen, Rice's Early Evergreen, Moore & Simon's Early Evergreen, Extra Early Evergreen, Gold Coin Evergreen.

Sugar. Crs Fer Haw Pks Vau.

SIMILAR NAMES. Bloomsdale Sugar, Landreth Sugar, Henderson's Sugar, Early Sugar, Henderson's Early Sugar, Early Maple Sugar, Large Sugar.

SEEDSMEN'S SYNONYMS. *Early Sweet*, Fer Crs Pks.

Sugar Productive. Kei.

Tait's Market Garden. Tat.

Thorburn's Melrose. Entered as *Melrose*.

Tilton's Twelve-Rowed. Til.

Triumph. *CE* CSC EBC Drr GH H&P *Lan* McM Mhl M&S Mzy Nol Pir Pri Raw Ree Rob Sim Tat Thr Wd WS.

SIMILAR NAMES. Early Triumph, Improved Triumph.

Troy Market. *Y&H.*

Trucker's Favorite. *Mns* Wd.

SIMILAR NAMES. Forsythe's Favorite, Riley's Favorite.

Tuckit. Drw.

Tuscarora. Ewg Ren Sim Tex Thr.

SIMILAR NAMES. White Tuscarora.

Vaughan's Black Sugar. Entered as *Black Sugar*.

Vick's Earliest of All. Entered as *Earliest of All*.

Washington. Buc *Fqr* S&F. For similar names see *Washington Market*.

Washington Market. Brd Bdg Bng Crs Elt Frd G&T TG *Hrs* Iml J&S Man Mzy Nef Prn Raw Ree Roc Sim Vk.

SIMILAR NAMES. Washington.

SEEDSMEN'S SYNONYMS. *Egyptian*, Bur Brd Frd G&T Prn Sim, etc.

Western Queen. Shm.

SIMILAR NAMES. Shumway's Western Queen.

White Cob Cory. Btl Bkt Bow Bgg Bgs Brn Brr C&J CE C&B Drr Ebe Elt RE Fqr Fer Fld Fle Gls GH Ggy Gry Gfg Grw Hrv Hen J&S Kei Kel K&W Koe Lan Lnr LB Liv Loh Man Mau May JCM *Mel* Mic Mv Mzy Nol NI OV *Pac* Pg Pir Pne Ptt Poo Por Pot Pri *Rtk* Raw Rce Rob Rs S&R S&F S&O *Sox S&W* Thr Thb Til *Tpk* T&B Wea Wdr Y&H.

SIMILAR NAMES. See *Cory*.

White Cob Evergreen. Liv. For similar names see *Stowell's Evergreen*.

White Early Adams. Pnt SC Sox. For similar names see *Early Adams*.

White Mexican. *Fld* MV Sox. For similar names see *Black Mexican*.

White Tuscarora. CSC. For similar names see *Tuscarora*.

Will's Banana Cream, Will's Early June, Will's Five X. Entered as *Banana Cream*, *Early June*, and *Five X*.

Wisconsin Beauty. May.

Yexo. Hst.

SIMILAR NAMES. Hastings' Yexo.

Zigzag. Brk Min. For similar names see *Stowell's Evergreen*.

SEEDSMEN'S SYNONYMS. *Ne Plus Ultra*, Ken. *Shoe Peg*, Hen.

Zigzag Evergreen. Brd Bkt Buc Brr CE CSC EBC Cle Col *Dlw* Drr RE Ewg Fld Frd GH Gra Gry G&T TG Ham Hbt Iml J&S Lan Lnr *Loh* Mgd Mau JCM JMM *Mhl* Mls NK Ree Rim Roc *Shr* S&O Shm Sim Trm Vl Vau.

SIMILAR NAMES. See *Stowell's Evergreen*.

CORN SALAD.

(Also called Fetticus.)

Corn Salad. Bel Bru Buc Bui Cox Cur Ebr Eic Evr Ewg Fqr Gra Grw Ham H&C H&P Iow MWJ *Kra* Lam Liv Mgd PM Mns Pri Pug Raw Rt Sal SC Shw Spf Stk SB Stw Tpk Vau Vk Vin.

Broad-Leaved. Alx Btl Blg Brn Dlw GH TG Hns J&S Lan Min Nol Pir Shm Sim Vl.

Similar names. Small-Seeded Broad Leaf, Large-Seeded Broad Leaf, Broad-Leaved Dutch.

Broad-Leaved Dutch. M&S.

Similar names. Large-Leaved Dutch, Small-Seeded Dutch, Large-Seeded Dutch.

Green Cabbaging. Crs Mnd Thr.

Similar names. Improved Green Cabbaging, Large Green Cabbaging.

Improved Green Cabbaging, Improved Large-Leaved, Improved Large-Seeded. Entered as *Green Cabbaging*, *Large-Leaved*, and *Large-Seeded*.

Italian. *Kei.*

Similar names. Large-Seeded Italian Broad-Leaved.

Large German. *Pac* T&B.

Large Green Cabbaging. *CE* Hst Ree Sie Til Y&H.

Similar names. See *Green Cabbaging.*

Large-Leaved. Brd Brk Bri Brr DD RE Hde Hen *H&C* Hly J&M Jns Man Neb Pnt Ptt Poo Pot Roc Thm Wat Web Wer Wd.

Similar names. Improved Large, Large-Seeded Large-Leaved, Large-Leaved Dutch, Large-Leaved Fetticus.

Large-Leaved Dutch. Ren. For similar names see *Broad-Leaved Dutch.*.

Large Round-Leaved. Bgs C&J Ebe Fst Frd Hrm Hrn Ken Mau Mhl NK JMP Yng.

Similar names. See *Round-Leaved.*

Large Round-Leaved Large-Seeded. Bur Hlm Ree.

Similar names. See *Round-Leaved.*

Large-Seeded. Anb Brt Bkt Bdg Brn Bng Cle CF Crs Drr Elt Ger GH Gry Hrv Inl Kg Kos Lnr Mnd *Man* May JCM JMM MV Mzy Nef HP Por S&R S&F Sox S&W Tat Tex TB Thr Til Trm Vl W&D Wdr.

Similar names. Improved Large-Seeded, Large-Seeded Dutch, Large Seed Broad-Leaved, Large-Seeded Large-Leaved, Large Round-Leaved Large-Seeded.

Large-Seeded Broad Leaf. CE.

Similar names. See *Broad-Leaved, Large-Seeded.*

Large-Seeded Dutch. Ree. For similar names see *Broad-Leaved Dutch.*

Large-Seeded Italian Broad-Leaved. M&S. For similar names see *Italian.*

Large-Seeded Large-Leaved. Loh.

Similar names. See *Large-Leaved, Large-Seeded.*

Lettuce-Leaved. *Bgg* C&J Ken Mzy Thr.

Round-Leaved. Emr Wea.

Similar names. Large Round-Leaved Large-Seeded, Round-Leaved.

Small-Leaved. DD. For similar names see *Small-Seeded.*

Small-Seeded. Bdg Ebe GH May *JMM* Mzy Thr.

Similar names. Small-Seeded Dutch, Small-Seeded Broad-Leaved, Small-Leaved.

Small-Seeded Broad Leaf. CE. For similar names see *Broad-Leaved.*

CRESS.

American. Hen Mnd W&D.

SIMILAR NAMES. American Land.

SEEDSMEN'S SYNONYMS. *Land*, Hen Mnd W&D.

American Land. RHJ Kei. For similar names see *American.*

Australian. Bdg Hen RHJ Kei Vk W&D.

SIMILAR NAMES. Henderson's Australian.

SEEDSMEN'S SYNONYMS. *Golden*, Bdg Kei. *Golden Yellow*, Bgs.

Broad-Leaved. Ar Brn Bru RE Gra Gng Kei Lan MV HP Pri Ren Sim *Sox* Stw Thr.

SIMILAR NAMES. Broad-Leaved Garden, Broad-Leaved Green, Broad-Leaved Gray-Seeded, Broad-Leaved Winter.

Broad-Leaved Garden. Sox Vk.

SIMILAR NAMES. Curled Garden.

Broad-Leaved Gray-Seeded. Eic GH. For similar names see *Broad-Leaved.*

Broad-Leaved Green. SB. For similar names see *Broad-Leaved.*

Broad-Leaved Winter. MV *Sox* Thr. For similar names see *Broad-Leaved.*

Curled. Ar Ber Brk Bri Brn Buc Bui Bur CF Crs Dlw *DD* Eas Ewg Fle GH Ggy Gfg G&T TG Hde *Hrn* H&C H&P J&M Koe Kra *Lam* Lan Lnr LB Loh May McM Min MV Mzy Neb *Nol* NK Pg Pks HP Pnt Por Pri Qkr RP S&R S&F Shw Shm *Sox* Stk Stw S&H S&W Tat Tem Thr Tpk Vin Wat Wd WS *Y&H.*

SIMILAR NAMES. Extra Curled, Early Curled, Extra Early Curled, Single Curled, Double Curled, Extra Double Curled, Triple Curled, Extra Triple Curled, Fine Curled, Extra Fine Curled, Fine Double Curled, Dwarf Fine Curled, Curled Garden.

SEEDSMEN'S SYNONYMS. *Pepper*, NK. *Peppergrass*, Buc Fer H&P Neb Pg HP, etc.

Curled Garden. Ebe Fmr JL Mns Old Ree Vau Wer.

SIMILAR NAMES. See *Curled, Broad-Leaved Garden.*

SEEDSMEN'S SYNONYMS. *Peppergrass*, Frd.

Curled Peppergrass. Brr C&J CE Fer *Vl.* For similar names see *Peppergrass.*

Curled Upland. Thm. For similar names see *Upland Cress.*

Double Curled. Brd Cle Dun Ebr Hrn Kei TB Trm. For similar names see *Curled.*

SEEDSMEN'S SYNONYMS. *Peppergrass*, Trm.

Dwarf Fine Curled. Ebe Mgd. For similar names see *Curled.*

Early Curled. Til. For similar names see *Curled.*

Erfurt. Drr Mnd JMM Mhl S&W W&D.

SIMILAR NAMES. Erfurt Sweet.

Erfurt Sweet. Thr. For similar names see *Erfurt.*

Extra Curled. Alr Brt Bkt Bdg Bru *CE* Chl Cur Del Drr Elt Emr *RE* Fqr Ger Gdn Gra Gng Gry Grw Hrm Hrv Haw Hen Hop J&S Jns K&W Kg Kos Lam Liv Mnd Mas JMM Mhl Nol *Pac* Pir Prn Pne Ptt Pot Pug Raw Ree Rt Sal Sim SR Tex T&B Wea W&D Yng Y&H.

SIMILAR NAMES. See *Curled.*

SEEDSMEN'S SYNONYMS. *Peppergrass*, Brt Bkt Drr J&S Lam Liv, etc.

Extra Curled Peppergrass. Ham. For similar names see *Peppergrass.*

Extra Curled Upland. Hst. For similar names see *Upland Cress.*

Extra Double Curled. JCM. For similar names see *Curled.*

Extra Early Curled. Cam. For similar names see *Curled.*

Extra Fine Curled. Hrs S&O Sox. For similar names see *Curled.*

Extra Triple Curled. McK Ren. For similar names see *Curled.*

Fine Curled. *Bgg* Bur Col RE Hbt Hlm Iml Lea M&S *Sie* Vk Wll.

SIMILAR NAMES. See *Curled.*

SEEDSMEN'S SYNONYMS. *Peppergrass*, Bur Del Hlm Mls.

Fine Double Curled. Vl. For similar names see *Curled.*

Golden. Bdg RE Kei.

Similar names. Henderson's Golden, Golden Yellow.

Seedsmen's synonyms. *Australian*, Bdg. *Henderson's Australian*, Kei.

Golden Yellow. Bgs. For similar names see *Golden.*

Seedsmen's synonyms. *Australian*, Bgs.

Gray-Seeded Early Winter. Fer *Loh.* For similar names see *Winter.*

Henderson's Australian, Henderson's Golden. Entered as *Australian* and *Golden.*

Improved Large-Leaved. Entered as *Large-Leaved.*

Land Cress. Hen Mnd W&D.

Seedsmen's synonyms. *American*, Hen Mnd W&D.

Large-Leaved. Ggy.

Similar names. Improved Large-Leaved.

Peppergrass. Ar Brt Bkt Ber Bgg Brk Brn Buc Bui Bur Dlw DD Drr Fer Fle Gls GH Gfg G&T Hde *Hrn* Hbt H&C H&P Jns Koe Kos Kra Lam *Lnr* LB Loh JMM McM Mhl M&S Mzy Neb NK Pg Pks HP Pnt Pri Rt RP S&F Shm *Sie Sox* Stk S&W Tat Tex Thr Til Trm Wdr *Y&H.*

Similar names. Curled Peppergrass, Extra Curled Peppergrass.

Seedsmen's synonyms. *Common*, DD. *Cress*, Bui. *Curled*, Buc Fer H&P Neb Pg Pnt, etc. *Curled Garden*, Frd. *Double Curled*, Trm. *Extra Curled*, Brt Bkt Drr J&S Lam Liv, etc. *Fine Curled*, Bur Del Hlm Mls.

Plain. Ewg.

Single Curled. TB. For similar names see *Curled.*

Triple Curled. *Man* Pac. For similar names see *Curled.*

Upland Cress. Alx Brd Bkt *Bgg* Brk Bdg Buc Bur Col Cur Drr RE Ewg Fqr Fst Ggy Hen Hbt MWJ J&S Liv *McK* Mhl M&S Pnt Raw Ren Sal S&F Sim Spf Vau Web W&D Wer Wyg Yng.

Similar names. Curled Upland, Extra Curled Upland, Land Cress.

Water Cress. Alx Ar Brd Brt Btl Bkt Bow *Bgg* Brk Bdg Bri Brn Bru Buc Bui Bur C&J Cam CE Chl Cle C&B Cox Crs Cur Del Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fer Fle Ger Gdn GH Gra GN Ggy Gry Gfg Grw Hrm Hrn Hrs Hrv Hst Hen H&C Hlm H&P MWJ RHJ J&M J&S Kei K&W Ken Kg Kos Lan Lnr LB Liv JL Loh Mnd Mgd Mns May JCM McK McM Min MV M&S Mzy Neb Nol NK Pac HP Pir Prn Pnt Ptt Poo Por Pot Pri Pug Raw Ree Ren Ree Rt S&R S&F S&B *Shw* S&O Sim Sox Spf Stw S&H Tat Thm Thr Til *Tpk* T&B Vl Vau Vk Vin Wat Wea W&D Wer Wd WS Yng Y&H.

Winter. MWJ.

Similar names. Gray-Seeded Early Winter, Broad-Leaved Winter.

CUCUMBER.

African Horned. Chl *D&H Fmr* Ggy *Iow* Jes Mau *Mls Shw Wer.*

Alaska. Buc Roc.

Similar names. Buckbee's Alaska.

Albino. Fer *Lnr* Liv Pg Vau.

Similar names. White Albino.

Arlington Early White Spine. Buc M&S NK Ptt Sie SB.

Similar names. See *Arlington White Spine.*

Arlington White Spine. Alx Ar Bak Brd Ber Blg Brk Bri Brn *Bru* Bng Bui Bur Brb *Cam CE* Cle C&B Col CF Cox Crs Cur Dlw *D&H* DD D&C Drm Ebr Emr RE Evr Ewg Fqr Fer GH Gra Ggy Gng Gry Ham H&C Hlm Hse Inl RHJ J&S Kg Lan Lea Lnr Liv Mnd Mgd Mns May Mic MV M&S Neb Nol *Old Pg* HP *Pnt* Pri Raw Ree Rob Roc Rt S&F S&O Sox S&W Tat Thr Til *Vau* Wea WS Y&H.

Similar names. Arlington White Spine Forcing, Hill's Arlington White Spine, Arlington Early White Spine, Improved Arlington Early White Spine, Improved Arlington White Spine. See also *White Spine.*

Seedsmen's synonyms. *Improved Early White Spine,* Bui Bur Frd D&C H&C Hlm Rt. *Improved White Spine,* Liv Col Ggy Ham. *White Spine,* Lon. *Extra Early White Spine,* Iml.

Arlington White Spine Forcing. Drr Jns Tat.

Similar names. See *Arlington White Spine.*

Arnstade's Green Giant Forcing. Koe. For similar names see *Norbiton Giant.*

Astro. Iow *Lnr.*

Seedsmen's synonyms. *Rollinson's Telegraph,* JL.

Austrian Gherkin. *Lan.*

Baltimore White Spine. G&T. For similar names see *White Spine.*

Bell's Prolific Pickling. Bel. For similar names see *Green Prolific.*

Bennett's Early White Spine. C&J.

Similar names. See *Bennett's White Spine.*

Bennett's Evergreen White Spine. Web.

Similar names. See *Evergreen White Spine, Bennett's White Spine.*

Bennett's Improved Early White Spine, Bennett's Improved White Spine. Entered as *Bennett's Early White Spine* and *Bennett's White Spine.*

Bennett's White Spine. Bkt Bgs *CE* Chl CF Frd Ggy Mau Ptt Pri Rce Rob W&D Wdr.

Similar names. Bennett's Improved White Spine, Bennett's Improved Early White Spine, Bennett's Evergreen White Spine. See also *White Spine.*

Seedsmen's synonyms. *Peerless White Spine,* Ptt.

Bismarck. Brd Buc Fer Ggy Hde Iow Iml *Lnr* LB Mns Neb Shw.

Seedsmen's synonyms. *Extra Long Evergreen,* Iml. *Tailby Hybrid,* Fer.

Bloomsdale White Spine. *Lan.* For similar names see *White Spine.*

Blue Gown. Brk Bui Gry Hen Mzy Sim SB W&D.

Bolgiano's Extra Early White Spine. Blg.

Similar names. See *White Spine.*

Bolgiano's Improved Extra Early White Spine. Entered as *Bolgiano's Extra Early White Spine.*

Boston Market. Lan M&S Ren Stw. For similar names see *Boston Pickling.*

Seedsmen's synonyms. *Boston Pickling,* Lan Stw. *Prize Taker,* M&S.

Boston Market Forcing. Fqr. For similar names see *Boston Pickling.*

Boston Pickling. Alr Anb Brt Btl Bow Bgg Brk Bgs Bri Brn Bru Buc Bui Brb *Bur* Brr CE Cle C&B CF Cox Crs Cur CA D&H Del DD D&C Drm Dun Eic Emr RE Evr Fqr Fst Fax Fer Frd Ger Gls GH Gra Ggy Gry Grw TG Hns Hde Hrm Hrv Haw Hen Hlm Hse H&P Iow Jer J&S Jns K&W Ken *Kg* Kos Kra Lam Lan Lnr LB Liv Loh Mnd Mgd Man Mns Mas May Mic Mls MV M&S Mzy Neb Nef Nol OV Pac Pg HP JMP Pir Pne Pnt Ptt Poo Por Pot Pri Pug Raw Rce Rob Roc Rt Rs RP Sal S&R SC S&F S&O Sie Sim Sox Spf SB Stw TB Thm Thr Til *Tpk* Vau Vk Wea Web Wer Wll Wdr Wyg Yng Y&H.

Similar names. Boston Market, Boston Market Forcing, Early Boston Market.

Seedsmen's synonyms. *Boston Market,* Ewg Lan Stw. *Early Green Prolific,* Brr Fmr Fst Hlm Hop. *Extra Early Green Prolific,* D&C Frd. *Green Prolific,* Buc Bow Ewg Evr Fer J&S, etc. *Improved Extra-Early Green Prolific,* Bur. *Jersey,* SC. *Jersey Pickling,* Cle HP Iow Nef. *Short Green,* Bdg.

Breck's Forcing White Spine. Brk. For similar names see *White Spine.*

Briggs' Early Green Prolific. Entered as *Early Green Prolific.*

Brunning's White Spine. Bng. For similar names see *White Spine.*

Buckbee's Alaska, Buckbee's Extra Early Long Green, Buckbee's International, Buckbee's Monarch White Spine, Buckbee's Rockford Pickle. Entered as *Alaska*, *Extra Early Long Green*, *International*, *Monarch White Spine*, and *Rockford Pickle*.

Buist's Long Green, Buist's Perfection Early White Spine. Entered as *Long Green* and *Perfection Early White Spine*.

Burner's Monarch. RE. For similar names see *Monarch White Spine.*

Burpee's Fordhook Pickling, Burpee's Giant Pera, Burpee's White Pearl, Burpee's White Wonder. Entered as *Fordhook Pickling*, *Giant Pera*, *White Pearl*, and *White Wonder.*

Burr. Alx Ar Brd Bri Bui C&B Col Crs Drr Eic Elt Ewg Frd Gls Gra G&T TG Hde Hlm Iow J&S Kg PM Mns *Nol* JMP Pnt Poo Por Raw Rim S&R SC Shm Sim Sox TB Til Trm *Vl* Wd WS Yng.

Similar names. See *Gherkin.*

Seedsmen's synonyms. *Gherkin*, Alx Brd Eic G&T Mns JMP, etc. *Round Prickly*, Lan. *Small Gherkin*, Bri Drr JL Mhl Por S&R Trm. *West India Gherkin*, Bui Elt Ewg Frd Hen Iow, etc.

California Pickling. J&M.

Cardiff Castle. Raw.

Carter's Earliest of All, Carter's Tender and True. Entered as *Earliest of All* and *Tender and True.*

Carter's Model. Brk D&H Gry S&F SB Vau. For similar names see *Model.*

Chesterfield. Jns.

Seedsmen's synonyms. *Chicago Pickling*, Jns.

Chicago. Ebr NK. For similar names see *Chicago Pickling.*

Seedsmen's synonyms. *Westerfield*, Ebr.

Chicago Pickling. Ar Bak Buc Btl Bel Bgg Bri Brn Bru Bui Brb Bur Brr Col Crs Dlw Del Drr RE Fmr Fst Fer Fld Gls Gdn Gra Ggy G&T Grw Hns Ham Hrs *H&C* Hop H&P *Iow* Jac *RHJ* Jns Kg Lam Lnr Liv JL Loh *Mgd* May McK Mic Neb NI OV Old Pir Por Qkr Rtk Ree Ren Rob RP Sal S&R S&B Shw Sie SB S&H *Tem* Tex Til *Tpk* Vl Vk Web Wer Wyg.

Similar names. Chicago, Improved Chicago Pickling, Wernich's Chicago Pickling, Westerfield's Chicago Pickling, Improved Westerfield's Chicago Pickling, Westerfield's Pickling, Westerfield.

Seedsmen's synonyms. *Chesterfield*, Jns. *Westerfield Pickling*, Bkt Btl Fer Lam Liv May, etc.

Childs' Early Beauty, Childs' Ivory Monarch. Entered as *Early Beauty* and *Ivory Monarch.*

Chinese Long-Remaining Green. Drr.

Similar names. See *Vick's Early Chinese.*

Chinese Snake. *Kei.* For similar names see *Vick's Early Chinese.*

Seedsmen's synonyms. *Sooly Qua*, Kei.

Cincinnati Pickle. *JCM.*

Climax Forcing. Tat.

Climbing. *Bel* Brr.

Climbing Delicatessen. Ger.

Cool and Crisp. Alx Alr Anb Brd Btl Bel *Ber* Bow Brk Bgs Brn Buc Bur Brr *CE* Cle C&B Col CF Cox Crs Cur CA D&H Del Drr Elt Ewg Fmr Fqr Fer Frd Gls GH Gng G&T TG Hns Ham Hrs Hen Hlm Hop Hse *MWJ* J&M J&S Jns Kg Koe Kra Lam *Lnr* LB Liv JL Lon Mgd Man Mau May JCM JMM McK Mzy Neb Nef *Nol* Old Pac Pg Prn Por Qkr Raw Ree Ren Rce Rob Roe S&R Shw Shm Sim S&H S&W Tem Thm Thr Thb Trm Vl Vau Vk Wea W&D Wer WS Yng.

Similar names. Henderson's Cool and Crisp.

Covent Garden. Mhl.

Similar names. Covent Garden Favorite, Covent Garden Frame.

Covent Garden Favorite. Bui Drr Elt W&D.

Similar names. See *Covent Garden, Lord Kenyon's Favorite.*

Covent Garden Frame. Bui. For similar names see *Covent Garden.*

Cox's Early White Spine. Cox. For similar names see *White Spine.*

Cox's Everbearing, Cox's Improved Early White Spine, Cox's San Francisco Pickling. Entered as *Everbearing, Cox's Early White Spine,* and *San Francisco Pickling.*

Coy's Early Cyclone, Coy's Cyclone, Coy's Cumberland. Entered as *Early Cyclone, Cyclone,* and *Cumberland.*

Cream City Pickling. Kos.

Similar names. Koss' Cream City Pickling.

Crosse & Blackwell Pickling. NK.

Cumberland. *Ar Brd Bkt Blg Bgg Brk Bru Bur Cox Crs Cur Drr Ebr Evr Fmr Fax Fer Ggy Iow J&M J&S K&W Lnr Liv Mgd Mau May JMM Mzy Pne Ptt Rob S&F Sie Sim Spf S&H Thr Vau Vk Wer Wd Wdr WS.*

Currie's Milwaukee Pickling. Entered as *Milwaukee Pickling.*

Cuthill's Black Spine. Hen Raw SB S&W W&D.

Similar names. See *Cuthill's White Spine.*

Cuthill's White Spine. Hen.

Similar names. Cuthill's Black Spine. See also *White Spine.*

Cyclone. Ggy *Tlh.*

Darch & Hunter's Improved Long Green. Entered as *Long Green.*

Duke of Edinburgh. Bng Bui Crs Drr Elt RE Gry Hrv Hen Mnd JMM Mzy Pks Pot Ren SB Tat Thr Vin W&D.

Dwelling House. Mhl.

Earliest of All. D&H. For similar names see *Extra Early.*

Early Beauty. Chl.

Similar names. Childs' Early Beauty.

Early Boston Market. Ebe JMM. For similar names see *Boston Pickling.*

Early Chinese. Vk.

Similar names. Vick's Early Chinese, Chinese Long-Remaining Green, Chinese Snake, Long China.

Early Cluster. Alx Alr Anb Ar Bai Bak Brt Btl Bel Bow Bgg Brk Bri Brn Bru Buc Brr C&J *CE* Cle C&B CF Cox *Crg* Cur Del Drr Ebe Ebr *Eic* RE Ewg Fqr Fax Fer Fld Fle Ger Gdn GH Gra Ggy Gry G&T Grw TG Hns Ham Hrn Hrv Hen H&C Hly Hnt Iow Jac RHJ J&M Jns Ken Kg Kra Lam Lnr LB Loh Mgd Mas May JCM JMM McK Mel Neb OV Pac Pg Pks Prn Pne Ptt Por Pot Pug Rtk Ren Rce Rob Roc S&R S&F S&O Sim Sox Spf Stk Stw S&H Tem TB Thm Thb Tpk Trm T&B Vl Vau Wea W&D Wll Wdr Wyg Y&H.

Similar names. Early Green Cluster, Paris Early Cluster Pickling.

Early Cyclone. *Bur Fmr Frd Hrs* J&S *Lnr JCM Pg Shw Wea Wdr.*

Similar names. Coy's Early Cyclone.

Early Evergreen. Brd Cam. For similar names see *Evergreen White Spine.*

Early Express. Iow.

Early Fordhook White Spine. Jer. For similar names see *Fordhook White Spine.*

Early Frame. Alr Anb Ar Brd Brt Btl Bel Ber Bow Bgg Brk Bgs Brn Bui Brb Bur Brr C&J CE Cle C&B Col CF Cox Crg Crs Cur CA Del DD Drr Dun Ebe Ebr *Eic* Emr RE Evr Ewg Fmr Fqr Fer *Fld* Fle Ger Gls Gdn GH Gra Gng Ggy Gry Gfg Grw TG Hns Hde Hrm Hrn Hrs Hrv Hst Haw Hen H&C Hly Hlm Hop H&P Iml Iow Jac MWJ J&M J&S Jns *Kei* K&W Ken Kg Koe Kos Lam Lan Lea Lnr LB Liv JL Mnd Mgd Man Mau May JCM JMM McM Mel Mhl Min M&S

Neb Nef Nol NI NK OV Old Pac Pg JMP Pir Pnt Ptt Por Pot Pug *Rtk* Raw Ree Ren Rce Rob Rt Rs RP SC S&F Shw S&O Shm Sim Sox Spf Stk SB Stw S&H Tex TB Thm Thb Tpk Trm T&B Vl Vau Vk Vin Web W&D Wll Wlt Wdr *WS* Wyg Yng.

Similar names. Extra Early Frame, Early Frame Short Green.

Seedsmen's synonyms. *Early Green Cluster*, Bdg. *Early Prolific Short Green*, Buc. *Early Short Green*, Bur Bow Col Fst Fer Pg, etc. *Early Short Pickling*, Bdg. *Gherkin*, Cur. *Short Green*, Cur Drr Ebr Fqr Iow J&S, etc.

Early Frame Short Green. Mic Sox.

Similar names. See *Early Frame, Short Green.*

Early Green Cluster. Brd *Bgg* Bdg Bgs Bui Brb Bur Cam CE Chl Col Cok Crs CA *DD* Drw Drm Dun Emr Evr Fst Gls Hde Hrm Hrs Hst Haw Hlm Hop H&P Iml *Kei* K&W K&F Lea Liv JL Man Mns Mau MV Mzy NI NK HP JMP Pnt Pri Qkr Raw RP SC Shw Shm Sie *Sox* SB S&W Tat Thr Vk Vin Web *WS.*

Similar names. Paris Early Green Cluster, Early Cluster.

Seedsmen's synonyms. *Early Frame*, Bdg. *Early Short Prickly*, Bdg.

Early Green Prolific. Bgs D&C Fmr Fst Hbt Hlm Hop M&S Ree Wdr Y&H.

Similar names. See *Green Prolific.*

Seedsmen's synonyms. *Boston Pickling*, Brr Fst Fmr Hlm Hop.

Early Long Green. Roc. For similar names see *Long Green.*

Early Long White Spine. Bow RE.

Similar names. See *Extra Long White Spine.*

Early Market. Sal.

Similar names. Salzer's Market Garden.

Early Netted Russian. H&P. For similar names see *Early Russian.*

Early Prize. May.

Similar names. Prize Taker, Prize Pickle, English Prize.

Early Prolific Short Green. Buc Roc.

Similar names. See *Short Green, Green Prolific.*

Seedsmen's synonyms. *Early Frame*, Buc.

Early Russian. Alr Anb Brd Brt Btl Bel Bgg Brk Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr C&J CE Chl Cle C&B CF Cox Crg Crs Cur Del Drr Dun Eas Ebe Emr RE Evr Ewg Fqr Fst Fer Fle Ger GH Gra Ggy Gry Grw TG Hns Ham Hrm Hrs Hrv Hen Hop H&P Jns *Kei* K&W Ken Lea Lnr LB Loh Mnd Mau May Mhl Mls MV Mzy Neb Nef NI OV Pac Pg Pks HP JMP Pir Ptt Por Pot Pri Qkr Raw Rob Roc Rs RP S&R S&F Shm Sim *Sox* Spf S&W Thr Thb AGT Til Tpk Trm T&B Vl Vk Vin Wea Web W&D Wdr Wyg Y&H.

Similar names. Improved Early Russian, Extra Early Russian, Early Netted Russian.

Seedsmen's synonyms. *Extra Early Siberian*, Bur. *Moromian Gherkin*, Sim.

Early Short Green. Alr Anb Btl Bow Bdg Bgs Brn Bui Bur CE Col Cox Crs Emr RE Fst Fer Fle TG LB JL Loh May MV M&S Mzy NI Pg Pks HP JMP Pne Pug Raw Rob SC S&O S&W Thr Tpk Wer *WS* Wyg.

Similar names. See *Short Green.*

Seedsmen's synonyms. *Early Frame*, Bow Col Fst LB Pug SC, etc. *Extra Early Frame*, HP.

Early Siberian. Buc Hop Rob. For similar names see *Northrup's Siberian.*

Early Spine. Hns. For similar names see *White Spine.*

Early White Spine. Alx Alr Anb Ar Btl Bou Bow Bgg Bdg Bru Bui Brb Bur Brw C&J CE C&B Crg Cur CA Dlw D&H D&C Drr Ebr *Eic* Evr Fst Fer Fle Gls Gdn Gng TG Hde Hrs Haw Hen Hbt Hly Hlm Hop Hnt H&P *Jer* MWJ Kei Koe Kos Kra Lam Lan Lea *Lnr* LB Loh Mnd Mns Mas Mel Mhl Min MV Mzy NI Pac Pg Pks JMP Prn Pnt Ptt Poo Pug Raw Ree *Ren* Rce Rim Rt RP SC Shw

Sox Stk SB S&H S&W Tem Tex TB Thb AGT Tpk Trm Vl Vk Wat W&D Wll Wlt Wd Wdr WS Wyg Yng Y&H.

Similar names. See *White Spine.*

Seedsmen's synonyms. *Peerless White Spine,* Bow. *Arlington,* D&C Hlm Rt. *Arlington White Spine,* Bui Bur Frd.

Eichling's Long Green Prolific. Entered as *Long Green Prolific.*

Emerald. Alx Alr Bri Bru Buc Bur Brw C&J Cam Col Drr Drm Ewg *Fax* Fer GH Gra Ggy Gry Ham Hrs Hst Hlm H&P Iow MWJ Kg Lan Lnr JL Mau May Mhl Mzy OV Pg HP Pne Pnt Ptt Qkr Raw Ree Rce *Rim* Rob Shw Shm Sim S&H S&W Tem *Tlh Tpk* Vl Vau Vk Wd WS.

Similar names. Livingston's Emerald, Florida Emerald, Emerald Gem, Emerald Green White Spine.

Emerald Gem. M&S. For similar names see *Emerald.*

Emerald Green White Spine. Ber Hst. For similar names see *Emerald.*

Empress of India. SB. For similar names see *White India.*

English Forcing. G&T.

Similar names. English Frame.

English Frame. Bui C&J Cur Mzy Pks *Pnt* Pot Pri S&R Tat Vin.

Similar names. See *English Forcing.*

Seedsmen's synonyms. *Telegraph,* C&J.

English Gherkin. Bru. For similar names see *Gherkin.*

English Prize. M&S. For similar names see *Early Prize.*

Eskimoso. J&S.

Everbearing. Alx Alr Ar Brd Brt Btl Bel *Bow* Brk Bdg Bgs Bri Bru Bng Buc Bui Brb Bur Brr C&J *Cam CE* Chl Cle C&B Col CF Cox Cur D&H Del *DD* Drr Drw Elt Evr Fqr Fst *Fld* Frd Gdn GH GN Ggy Gry G&T TG Hns Ham Hrs Hst Hen H&C Hlm Hop Hse H&P Jac Jer *MWJ* J&S Kg Koe Kra Lnr Liv Mnd Mgd Man Mau May McM Mhl Mls Mzy NI Pg HP Poo Pot Pri Qkr Raw Ree Ren Rce Rob Roc Sal S&F S&O Shm Sie Sox S&W Tem Tex Thr Vl Vau Vk Vin *Wat* Wea W&D Wer Wd Wdr WS.

Similar names. Cox's Everbearing, Page's Everbearing, Philipps' Everbearing, Salzer's Everbearing, Thorburn's Everbearing.

Seedsmen's synonyms. *Siberian,* J&S.

Evergreen. Anb Ar Bai Blg Brk Bgs Bri Buc Bur *Cam* C&B Col CF Cok Eas Ebr RE Evr Fld Frd GH Ggy TG Ham Hen Hbt Hlm Hop Jer MWJ *Lnr* Liv JL Mgd Man Mns Mau May JMM Mhl Mls MV Pac HP Pne Ptt Qkr Rce Rob S&O Sim *Sox* SB Thr Vau *Wat* Yng.

Similar names. See *Evergreen White Spine.*

Seedsmen's synonyms. *Extra Long White Spine,* HP.

Evergreen Early White Spine. *Brd* Bng Bui Dlw Eic.

Similar names. See *Evergreen White Spine.*

Evergreen White Spine. Alr Bak Brd Bkt Ber Bri Brn Bur *CE* CF Cur DD *RE* Fst Fer GH Gra Hde Hrn Hst *H&C J&S* Koe Kra Lnr Loh Mnd PM M&S Neb Nol NK JMP Pnt Ptt Pri Raw Rob Roc Rs SC Shw Spf *S&H Thm Tlh* Til Trm Vau Wea W&D Wyg.

Similar names. Bennett's Evergreen White Spine, Long Evergreen White Spine, Toledo Market Evergreen White Spine, Evergreen, Steele-Briggs' Evergreen, Thorburn's Evergreen, Early Evergreen, Extra Early Evergreen, Extra Long Evergreen, Evergreen Early White Spine. See also *White Spine.*

Seedsmen's synonyms. *Extra Long White Spine,* Bur Bkt Buc Fer Frd Hlm, etc.

Excelsior Long Green. Blg. For similar names see *Long Green.*

Extra Early. Bkt Eas Haw MWJ.

Similar names. Maule's Extra Early, Hammond's Earliest, Mills' Earliest, Salzer's Earliest, Carter's Earliest of All, Earliest of All.

Extra Early Evergreen. Blg. For similar names see *Evergreen White Spine.*

Extra Early Frame. HP. For similar names see *Early Frame.*

Seedsmen's synonyms. *Early Short Green*, HP.

Extra Early Green Prolific. Brd Bur Cle C&B Cur Ebe RE Frd Hen Man *Mls* Pnt Poo Pri Rob Shw Spf Tem Vau W&D.

Similar names. See *Green Prolific.*

Seedsmen's synonyms. *Boston Pickling*, D&C Frd Bur.

Extra Early Green Turkey. Ar. For similar names see *Long Green Turkey.*

Extra Early Long Green. Buc GN TG Hlm Rob Shw Shm SB Vk *Wlt.*

Similar names. See *Long Green.*

Extra Early Russian. Bdg *CE* DD Drm Haw Hse Lam Liv JL JCM McK Ren Ree Sox Tat Tem.

Similar names. See *Early Russian.*

Extra Early Siberian. Bgs Col D&H Gra Shw Shm.

Similar names. Early Siberian, Northrup's Siberian, Siberian.

Seedsmen's synonyms. *Early Russian*, Bur.

Extra Early White Spine. Bri Bur *Cam* CCo Del Elt G&T Ham Hst Hbt Hlm Iml J&M Neb Qkr *S&W.*

Similar names. See *White Spine.*

Seedsmen's synonyms. *Arlington White Spine*, Iml.

Extra Green Prolific Pickling. HP. For similar names see *Green Prolific.*

Extra Long. Bur Liv S&W. For similar names see *Long Green.*

Extra Long Evergreen. Iml. For similar names see *Evergreen White Spine.*

Seedsmen's synonyms. *Bismarck*, Iml.

Extra Long Green. Bai Ken Pac Raw S&W.

Similar names. See *Long Green.*

Seedsmen's synonyms. *London*, Ebe. *Jersey Pickle*, Raw.

Extra Long Green Giant. Cok Neb Tem Vl.

Similar names. See *Norbiton Giant*, *Long Green.*

Extra Long Green Prickly. Bur. For similar names see *Long Green.*

Extra Long Green Turkey. Bow Pnt.

Similar names. See *Long Green Turkey.*

Extra Long White Spine. Btl Bkt Bri Buc Bur *CE* Cle C&B CF Cur Elt Fer Frd Grw TG Hns Hrs Hrv Hen K&F Lnr Liv Loh Mau May Neb OV HP Pnt Ree Rob SC Shw S&O S&H Thm Thr Til *Tpk* Trm Vl Vau W&D.

Similar names. Long White Spine, Long White, Early Long White Spine. See also *White Spine.*

Seedsmen's synonyms. *Evergreen*, HP. *Evergreen White Spine*, Buc Bkt Bur Fer Frd Trm, etc.

Favorite Pickling. May OV *Tpk.* For similar names see *Lord Kenyon's Favorite.*

Florida Emerald. Bgs *CE* Cle. For similar names see *Emerald.*

Forcing White Spine. Bkt Bri Pot S&F. For similar names see *White Spine.*

Fordhook Famous. *Bur.* For similar names see *Fordhook White Spine.*

Fordhook Pickling. Alr Bru Buc Bur Cle Frd GH Gng Ggy Hbt J&S Jns Mgd Mls Mzy *Old* Pg Rob Roe Sal Shw Shm S&W Thr *Tlh* Vau Wdr.

Similar names. See *Fordhook White Spine.*

Fordhook White Spine. Bng Bur Ebe Frd Jer McK Ren.

Similar names. Improved Fordhook White Spine, Improved Early Fordhook White Spine, Fordhook Famous, Fordhook Pickling, Burpee's Fordhook Pickling. See also *White Spine.*

Frotscher's New Orleans Market. Entered as *New Orleans Market.*

Garden Gem. May.

Similar names. May's Garden Gem.

General Grant. DD Mzy Pnt.

Gherkin. Alx Anb Ar Bai Brd *Bow* Chl Cle C&B Col Cox Crg Cur Eic RE Evr Fer Gls Gdn G&T Grw TG Hde Hrn Hen Hnt Iml MWJ RHJ J&M *Kei* Kg Lam Lan LB PM Mns JMM Min Nef NK *Pac* Pks JMP *Pnt* Ptt Qkr Ren Rim SC Shw Shm Sox Spf Tat TB Til T&B *Vl* Vau Vk Wat Wea Wd WS.

Similar names. English Gherkin, Moromian Gherkin, Paris Gherkin, Small Gherkin, Short Stem Gherkin, Small West Indian Gherkin, West India Gherkin, West India Burr, Burr.

Seedsmen's synonyms. *Burr*, Alx Brd Col Eic Lan PM, etc. *Early Frame*, Cur. *Round Prickly*, Lan. *Short Green*, Cur Hen H&P Ptt Qkr Wea. *West India*, Ptt. *West India Gherkin*, Eic.

Giant German. Ggy. For similar names see *White German*.

Giant Green. Fqr. For similar names see *Norbiton Giant*.

Giant of Arnstadt. Crs DD JMM Mzy Thr Vk.

Giant Pear of Guadeloupe. *Ewg*.

Giant Pera. Alx Alr Anb Bai Btl Bel Brk Bgs Bru Buc Bui Bur Brr CE Cle CF Cox Cur CA Dlw DD D&C Ebe Emr RE Evr Ewg Fmr Fst Frd Ger GH Gra Gng Ggy Grw Ham Hrs Hst Hbt Hop J&M J&S Lnr LB Liv Mgd Mau May McK McM MV M&S Neb Nol NK *Pac* Ptt Pri Qkr Raw Ren Rce Rob Sal S&B Sim Sox SB S&H Thm Thr T&B Vau Vk Wer.

Similar names. See *Long Pera*.

Giant Tailby Hybrid. Sal. For similar names see *Tailby Hybrid*.

Giant White. Alr Col D&H Fmr Fqr Hrs Hop M&S Vin.

Similar names. See *Norbiton Giant*.

Giant White Perfection. Ewg Gra. For similar names see *Lockie's Perfection*.

Gladiator. M&S.

Similar names. Moore & Simon's Gladiator.

Glory of Erfurt. Crs DD. For similar names see *White Erfurt Spine*.

Goliath. Crs *Ger* Old *Thm* Thr Vau Wer.

Similar names. Goliath Long Green.

Seedsmen's synonyms. *Chicago Giant*, Old.

Goliath Long Green. D&H Shw. For similar names see *Goliath*, *Long Green*.

Grand Pera. Fle. For similar names see *Long Pera*.

Green Fournier. M&S.

Green Prolific. Alr Ar Bai Brd Ber Bow Bgg Bdg Bng Buc C&J *CE* Cle C&B CF Crs Cur Del Drr Drm Eic Elt Emr Evr Ewg Fqr Fer *Fld* Gls GH Gra Ggy Grw TG Hde Hrn Hrs Hrv Haw Hen H&C Hly Iow J&S Kei Kra Lam *Lnr* LB Liv JL Mgd Mns Mau May JCM JMM McM Mhl Mls Mzy Nol OV Pir Ptt Pot Pri Ren Rce Rob Rt RP Sal Shm Sox SB S&H *S&W* Tex Thb Til *Tpk* Vl Vau Vk Web Wer WS Wyg Yng.

Similar names. Improved Green Prolific, Extra Early Green Prolific, Improved Extra Early Green Prolific, Briggs' Early Green Prolific, Early Green Prolific, Extra Green Prolific Pickling, Green Prolific Pickling, Early Prolific Short Green, Short Prolific, Short Prolific Pickling, Walker's Prolific, Bell's Prolific Pickling, Salzer's Prolific Pickling, Vaughan's Prolific Forcing, Long Green Prolific, Eichling's Long Green Prolific.

Seedsmen's synonyms. *Jersey Pickling*, Buc Mhl Wat. *Boston Pickling*, Bow Buc Evr Ewg Lam Liv, etc.

Green Prolific Pickling. Bru Chl Ebr H&P Ken Lea Mnd MV Neb Prn Thr Wea W&D Wd.

Similar names. See *Green Prolific*.

Half Long. Blg Mns.

Hammond's Earliest. Ham. For similar names see *Extra Early*.

Hammond's Improved White Spine, Hammond's King of Picklers. Entered as *Hammond's White Spine* and *King of Picklers*.

Hammond's White Spine. Ham. For similar names see *White Spine*.

Hampel's Forcing. Koe.

Hastings' White Spine. Hst. For similar names see *White Spine.*

Henderson. Hen.

Henderson's Cool and Crisp. Entered as *Cool and Crisp.*

Hill's Arlington White Spine. Bgs. For similar names see *Arlington White Spine.*

Hill's Early Forcing White Spine. Bui *Ebe.*

Similar names. See *Hill's Forcing White Spine.*

Hill's Forcing. Cox. For similar names see *Hill's Forcing White Spine.*

Hill's Forcing White Spine. Buc Bur TG Hlm JL Mls Ree Rob Roc SB Wdr.

Similar names. Hill's Early Forcing White Spine, Hill's Forcing, Hill's Arlington White Spine. See also *White Spine.*

Holmes' Early White Spine. Hlm. For similar names see *White Spine.*

Holmes' Improved Early White Spine, Holmes' Improved Jersey Pickling. Entered as *Holmes' Early White Spine* and *Jersey Pickling.*

Ideal. Mhl.

Improved Arlington Early White Spine, Improved Arlington White Spine, Improved Chicago Pickling, Improved Early Fordhook White Spine, Improved Early Russian, Improved Early White Spine, Improved Extra Early Green Prolific, Improved Extra Early Green Turkey, Improved Extra Early White Spine, Improved Extra Long Green, Improved Fordhook White Spine, Improved Green Prolific, Improved Jersey Pickling, Improved Long Green, Improved Long Green Prickly, Improved Short Green, Improved Sion House, Improved Westerfield Chicago Pickling, Improved White Spine. Entered as *Arlington Early White Spine, Arlington White Spine, Chicago Pickling, Early Fordhook White Spine, Early Russian, Early White Spine,* etc.

International. Buc Roc.

Similar names. Buckbee's International.

Ivory King. Buc Roc.

Ivory Monarch. Chl. For similar names see *Monarch White Spine.*

Japanese. *Lan.* For similar names see *Japanese Climbing.*

Japanese Climbing. Alx Alr Ar Bai Brd Brt Btl *Bow* Brk *Bdg* Bgs Bru Buc Brb Bur Brr Cam Chl Col CF Cok Cox Crs Cur *Dlw* D&H Del DD Drr Ebr Eic Elt RE Evr Ewg Fmr Fqr *Fld* Frd Gls Gdn Gra Gng GN Gry G&T Hns Ham *Hrm* Hrn Hrs Hrv Hst Hen Hbt Hlm Hop Hse H&P Iml Iow Jac Jes MWJ J&M J&S *Kei* Kg Kos Kra Lam Lnr Liv JL Lon Mgd *Mns* Mau May JCM JMM Mls MV M&S Neb Nef Nol NK *Old* Pac Pg Pks HP Pir Prn Pne Pnt Ptt Por Pot Qkr Raw Ree Ren Rce Rob Roc Rs Sal S&R SC Shw S&O Shm Sim Sox Spf Stk SB Stw S&H S&W Tat Tem Thm Thr Til Trm Vl Vau Vk Vin Wea W&D Wer Wll Wyg.

Similar names. Japanese Climbing Green, Japanese Climbing White, Salzer's Japanese Climbing, White Japan, Japanese.

Japanese Climbing Green. Fqr S&F. For similar names see *Japanese Climbing.*

Japanese Climbing White. Fqr S&F. For similar names see *Japanese Climbing.*

Jersey Extra Early Prolific Pickling. RE J&S M&S Nol.

Similar names. See *Jersey Pickling.*

Jersey Pickling. Alx Bkt Blg Bgs Bri Brn Bru Buc Bui Bur Brw *Cam CE* Cle CF CA Dlw *DD* Evr Fst Fer Gdn GH G&T Grw TG Hrn Hen Hlm Hop H&P Iml Iow Jac J&S Ken Koe Lam Lan Lnr Liv Mnd PM Mns Mau May JCM JMM Mel Mhl Nef Nol NK Pks HP Pnt Pri Raw Rce Rim Rob SC Shw S&O Shm *SB* Stw Tem Til Vl Vau Wat WS.

Similar names. Jersey Prolific, Improved Jersey Pickling, Holmes' Improved Jersey Pickling, Perfected Jersey Pickling, Jonhnson & Stokes' Perfected Jersey Pickling, Jersey Extra Early Prolific Pickling.

Seedsmen's synonyms. *Boston Picking,* SC Iow HP Cle Nef. *Green Prolific,* Mhl Wat. *Improved Extra Long Green,* Raw. *Long Green Prickly,* Pnt. *Long Green Pickling,* Drr.

Jersey Prolific. Min. For similar names see *Jersey Pickling.*

Johnson & Stokes' Perfected Jersey Pickling. J&S.

King of Picklers. *Ham.*

Klondike. Ham.

Koss' Cream City Pickling. Entered as *Cream City Pickling.*

Landreth's Choice. Lan.

Landreth's First. Dlw Gfg Lan.

Landreth's Long Slim. Entered as *Long Slim.*

Lemon. *Ggy May* Vk.

Livingston's Emerald, Livingston's Evergreen. Entered as *Emerald* and *Evergreen.*

Livingston's Extra Early White Spine. Liv.

Similar names. See *White Spine.*

Livingston's Medium Green. JL.

Similar names. See *Nichols' Medium Green.*

Lockie's Perfection. Bru Bui D&H Drr Elt RE Gra Hen Lnr Raw Thr W&D.

Similar names. Salzer's Perfection, Giant White Perfection.

London. JMM. For similar names see *Long Green.*

Seedsmen's synonyms. *Extra Long Green,* Ebe. *Long Green,* JMM.

London Extra Long Green. Ebe. For similar names see *Long Green.*

London Long Green. Alx Bui Bur CF D&C Fst Gdn GH Hbt H&C Hlm Hop K&F M&S Pnt Ptt Ren SC S&F Tat *Wat* Wlt Wdr.

Similar names. See *Long Green.*

Long China. Chl. For similar names see *Early Chinese.*

Long Evergreen White Spine. Gra. For similar names see *Evergreen White Spine.*

Long German. Fst. For similar names see *White German.*

Long Gherkin. *Lan.*

Long Giant. Sal. For similar names see *Norbiton Giant.*

Long Giant Pera. Pac. For similar names see *Long Pera.*

Long Grecian. Fst.

Long Green. Alr Bak Brd Brt Btl Bkt Bel Bey Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Brr Brw C&J Cam CE Cle C&B Col Cox Crs Cur CA Dlw D&H Del DD Drr Drm Dun Eas Ebe Eic Elt Emr RE Evr Ewg Fmr Fqr Fax Fer Fld Fle Frd Ger Gls Gdn GH Gra Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrs Hrv Hst Haw Hen Hly Hlm Hse Hnt H&P Iml Iow Jac Jer RHJ J&M J&S Jns *Kei* K&W Kg Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Lon Mnd Mgd Man PM Mns Mas Mau May JCM JMM McK McM Mic Mhl Mls Min MV M&S Mzy Neb Nef Nol NI NK OV Old *Pac* Pg Pks HP JMP Pir Prn Pne Poo Por Pot Pri Pug Rtk Ree Ren Rce Rob Roe Rs RP Sal S&R S&B Shw S&O Shm Sie Sim Sox Spf SB Stw S&H Tem Tex Thm Thr Thb AGT Til Tpk Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wer Wll Wd WS Wyg Yng Y&H.

Similar names. Long Green, London Long Green, London Extra Long Green, London, Extra Long, Long Green Prickly, Improved Long Green Prickly, Extra Long Green Prickly, Extra Long Green Giant, Long Prickly, Buist's Long Green, Excelsior Long Green, Goliath Long Green, Pierson's Long Green, Early Long Green, Extra Early Long Green, Buckbee's Extra Early Long Green, Extra Long Green, Improved Extra Long Green, Improved Long Green, Maule's Improved Long Green, Pearce's Improved Long Green, Simmers' Improved Long Green, Long Green Southgate, Long Green Prolific, Eichling's Long Green Prolific, Long Green Turkey, Extra Long Green Turkey.

Seedsmen's synonyms. *New Orleans Market,* Eic. *London,* JMM. *Jersey Pickling,* Drr.

Long Green Giant. *Ger.*

Long Green Giant Pera. Ebr. For similar names see *Long Pera.*

Long Green Parisian. Thr. For similar names see *Parisian Pickling.*

Long Green Prickly. Gra Ggy Pnt S&F. For similar names see *Long Green.*

Seedsmen's synonyms. *Jersey Pickling*, Pnt.

Long Green Prolific. Drw Eic. For similar names see *Long Green.*

Long Green Southgate. Sal. For similar names see *Long Green.*

Long Green Turkey. Anb Bou *CE* Cle Cox Cur Dlw Drm Emr Fst GH Ggy Gfg Grw TG Hen MWJ Koe Lan May Mel Mhl Min MV Ree Rob RP SC Shw Sox Stk Stw Tat TB Thm Thr Web.

Similar names. Extra Long Green Turkey, Improved Extra Early Long Green Turkey, Extra Early Green Turkey. See also *Long Green.*

Long Gun. Mzy.

Long Island Pickling. Bng.

Long Pera. Hnt.

Similar names. Giant Pera, Burpee's Giant Pera, Mammoth Giant Pera, Long Giant Pera, Long Green Giant Pera, Grand Pera, White Pera.

Long Prickly. Bui. For similar names see *Long Green.*

Long Slim. *Lan.*

Long White. Fqr. For similar names see *Extra Long White Spine.*

Long White Spine. Bdg Bgs Jns Pac Ree *Thm.*

Similar names. See *Extra Long White Spine.*

Seedsmen's synonyms. *New Jersey Hybrid*, Bdg.

Lord Gladstone. Bui.

Lord Kenyon's Favorite. Bui Gry Hen S&W W&D.

Similar names. May's Favorite Pickling, Covent Garden Favorite, Favorite Pickling.

McKenzie's Prolific. *McK.*

McMillan's Improved White Spine, McMillan's White Wonder. Entered as *McMillan's White Spine* and *White Wonder.*

McMillan's White Spine. McM. For similar names see *White Spine.*

Mammoth Giant Pera. Shm. For similar names see *Long Pera.*

Mammoth Long. Mic.

Market Garden. Sal. For similar names see *Early Market.*

Marquis of Lorne. Bui Elt RE Ewg Gra Mhl Prn Ren Sim SB Vin W&D.

Matchless. Mhl. For similar names see *White Spine.*

Matchless Extra Early White Spine. *Nol.* For similar names see *White Spine.*

Matchless White Spine. M&S. For similar names see *White Spine.*

Maule's Early White Spine. Mau. For similar names see *White Spine.*

Maule's Extra Early. Mau. For similar names see *Extra Early.*

Maule's Improved Long Green. Entered as *Long Green.*

May's Favorite Pickling, May's Garden Gem, May's Peerless. Entered as *Favorite Pickling, Garden Gem,* and *Peerless.*

Meaux Pickling. Crs.

Medium Green. Del Hns Lan May OV Stw *Tpk Vl.*

Similar names. See *Nichols' Medium Green.*

Medium Pickling. Eas. For similar names see *Nichols' Medium Green.*

Mills' Earliest. Mls. For similar names see *Extra Early.*

Milwaukee Pickling. Cur Koe.

Similar names. Currie's Milwaukee Pickling.

Model. Crs Sim *Wd.*

Similar names. Model Forcing, Tait's Model, Carter's Model.

Model Forcing. Wer. For similar names see *Model.*

Monarch White Spine. Buc GN Roc.

Similar names. Burner's Monarch, Buckbee's Monarch White Spine, Childs' Ivory Monarch, Ivory Monarch. See also *White Spine.*

Moore & Simon's Gladiator, Moore & Simon's Matchless White Spine. Entered as *Gladiator* and *Matchless White Spine.*

Morning Star. Sal. For similar names see *Star of the West.*

Moromian Gherkin. Sim. For similar names see *Gherkin.*

Seedsmen's synonyms. *Early Russian*, Sim.

New Orleans Market. Eic *Pnt Shw* Stk Thm Thr.

Similar names. Frotscher's New Orleans Market.

Seedsmen's synonyms. *Improved Long Green*, Eic. *Tailby Hybrid*, Bui.

Nichols' Medium Green. Alx Alr Anb Bai Brd Brt Btl Bow Bgg Bdg Bgs Bru Bng Buc Bui Brb Bur Brr Brw C&J *CE* Cle *CF* Cok Cox Crs Dlw D&C Drr Ebr Elt Emr RE Evr Fmr Fst Frd Ger GH Gng Ggy TG Ham Hrs Hrv Hen Hbt H&C Hlm Hop H&P J&M J&S K&W Kos Kra Lnr Liv Mnd Man Mau JCM JMM Mls MV M&S Mzy Nol NK Pac HP JMP Pir Prn Ptt Pot Pri Pug Raw Ren Ree Rob Roc Rs RP Sal Shw S&O Shm Sie Sim Sox SB S&H Tat Tem Tex Thr Thb Trm T&B Vl Vk Vin *Wat* Web W&D Wdr Yng Y&H.

Similar names. Livingston's Medium Green, Medium Pickling, Medium Green.

Noa's Forcing. Gng Koe Liv Thr Vau Vk Vin.

Nonesuch. Sal.

Norbiton Giant. Ggy.

Similar names. Shumway's Giant, Arnstade's Green Giant Forcing, Salzer's Long Giant, Giant Green, Extra Long Green Giant, Giant White, Giant White Perfection, Long Giant.

Northrup, King & Co.'s Pickling. NK.

Northrup's Siberian. Entered as *Siberian.*

Page's Everbearing. Entered as *Everbearing.*

Paris Early Cluster Pickling. M&S *Nol.* For similar names see *Early Cluster.*

Paris Gherkin. *RHJ* Mgd. For similar names see *Gherkin.*

Parisian Long White Ridge. Ebe RHJ. For similar names see *Stockwood Ridge.*

Parisian Pickling. Alr Btl Bru Bur Col Cox Crs *D&H* Eas RE Ewg *Fld* Frd Gra Ggy Hrs Hlm Hop Mau McK Ren Ree Rob Shm Sim Sox Vau.

Similar names. Parisian Prolific Pickling, Long Green Parisian.

Parisian Prolific Pickling. Buc Evr Fle J&M Lnr Roc SB Vin Wyg.

Similar names. See *Parisian Pickling.*

Pearce's Improved Long Green. Entered as *Long Green.*

Pearl. Alr. For similar names see *White Pearl.*

Peerless. GH Mnd Mns Mau May Nol Vin.

Similar names. See *Peerless White Spine.*

Peerless Improved White Spine. Entered as *Peerless White Spine.*

Peerless White Spine. Bel Bow Bgg Bgs Buc Bur *Cam CE* CF Cur Ewg Frd Gra Ggy Grw TG Hrn Hlm J&S Jns Liv JL PM Mas Mls M&S Mzy Neb NK Old Ptt Por Pri Ree Rob Roc S&R S&B Thr Til Web Wdr Y&H.

Similar names. Peerless Improved White Spine, Peerless, May's Peerless, Vincent's Peerless. See also *White Spine.*

Seedsmen's synonyms. *Bennett's White Spine*, Ptt. *Early White Spine*, Bow. *Improved White Spine*, GH J&S PM Nol.

Perfected Jersey Pickling. Entered as *Jersey Pickling.*

Perfection Early White Spine. Bui. For similar names see *White Spine.*

Perfection White Spine. Cam Iow Vk. For similar names see *White Spine.*

Philipps' Everbearing. Entered as *Everbearing.*

Pickling. CE.

Pierson's Long Green. Entered as *Long Green.*

Plant Seed Co.'s Early White Spine. Entered as *Early White Spine.*

Prescott Wonder. Mnd Thr. For similar names see *White Wonder.*

Pride of Canada. Sim.

Prize Pickle. Ren. For similar names see *Early Prize.*

Prize Taker. M&S. For similar names see *Early Prize.*

SEEDSMEN'S SYNONYMS. *Boston Market*, M&S.

Prolific Pickling. Sal. For similar names see *Green Prolific.*

Rawson's White Spine. Brt Raw. For similar names see *White Spine.*

Rochford. Fqr.

SIMILAR NAMES. Rochford's Market Garden, Rochford's Market, Rockford Market, Rockford Pickle, Buckbee's Rockyford Pickle.

Rochford's Market. Drr *S&F.* For similar names see *Rochford.*

Rochford's Market Garden. Mhl. For similar names see *Rochford.*

Rockford Market. W&D. For similar names see *Rochford.*

Rockford Pickle. Buc GN Roc. For similar names see *Rochford.*

Rollinson's Telegraph, Rollinson's Telegraph Forcing, Rollinson's Telephone. Entered as *Telegraph*, *Telegraph Forcing*, and *Telephone.*

St. Louis Pickling. DD SC.

Salzer's Earliest. Sal. For similar names see *Extra Early.*

Salzer's Everbearing, Salzer's Giant Tailby Hybrid, Salzer's Japanese Climbing, Salzer's Long Giant, Salzer's Market Garden, Salzer's Morning Star, Salzer's Prolific Pickling. Entered as *Everbearing*, *Giant Tailby Hybrid*, *Japanese Climbing*, *Long Giant*, *Market Garden*, etc.

Salzer's Perfection. Sal. For similar names see *Lockie's Perfection.*

San Francisco Pickling. Cox.

SIMILAR NAMES. Cox's San Francisco Pickling.

Serpent. Buc Bur Brr *CE* Cle *DD* Fmr Fst Frd Hop J&S *Lar* Liv JL MV M&S Neb Rce Rob Shm Sox *Tem* Vau.

SIMILAR NAMES. See *Snake.*

SEEDSMEN'S SYNONYMS. *Snake*, Buc Bur Brr J&S Liv Neb, etc.

Short Green. Alr Bak Bel Brr C&B Cur Del Ebr Gls GH Ggy Gry Gfg Grw Hns Hde Hrm Hrn Hrv Hen Hlm Hop H&P Iml Iow Jns Kei K&W Lam Lnr Liv Man Mau Min Nef NK Pnt Ptt Pri Pug Rce Rs RP S&R S&F Shm SB Tex Trm Vl Vk Wea W&D *Wlt* Y&H.

SIMILAR NAMES. Early Short Green, Improved Short Green, Early Prolific Short Green, Early Frame Short Green.

SEEDSMEN'S SYNONYMS. *Boston Pickling*, Bdg. *Early Frame*, Cur Drr Fqr Iow J&S Lam, etc. *Gherkin*, Cur Hen H&P Ptt Qkr Wea.

Short Green Gherkin. CA SB. For similar names see *Gherkin.*

Short Prolific. Hns. For similar names see *Green Prolific.*

Short Prolific Pickling. Btl Dlw Koe Lan Rim *Vl.*

SIMILAR NAMES. See *Green Prolific.*

Shumway's Giant. Shm. For similar names see *Norbiton Giant.*

Shumway's Improved White Spine. Entered as *Shumway's White Spine.*

Shumway's White Spine. Shm. For similar names see *White Spine.*

Siberian. Anb Brd Btl *Bur* Fmr Frd Ger Hns Hrs J&S Mgd Neb NK Sim Trm Vau Wd WS.

SIMILAR NAMES. Early Siberian, Extra Early Siberian, Northrup's Siberian.

SEEDSMEN'S SYNONYMS. *Everbearing*, J&S.

Simmers' Extra Early White Spine. Sim. For similar names see *White Spine.*

Simmers' Improved Extra Early White Spine, Simmers' Improved Long Green. Entered as *Simmers' Extra Early White Spine* and *Long Green.*

Sion House. Brt Drr Ewg Gra Hrv Mhl Mzy S&W Vin.
  SIMILAR NAMES. Improved Sion House.

Small Gherkin. Bow Bri Drr Emr JL Mnd Mau Mhl MV Neb Nol HP Por S&R *Sox* Thr Tpk Trm.
  SIMILAR NAMES. See *Gherkin.*
  SEEDSMEN'S SYNONYMS. *Burr,* Bri Drr JL Mhl Por S&R Trm.

Small Green Pickling. S&W.

Small West Indian Gherkin. *Kei.* For similar names see *Gherkin.*

Snake. Buc Bur Brr *CE* Cle Cur *DD* Evr Fst Frd Ggy Hop Iow J&S *Lnr* Liv JL Mau MV M&S Neb Pac Pg Ptt Rce Rob Sal Shm Sox *Tem Thm.*
  SIMILAR NAMES. Serpent.
  SEEDSMEN'S SYNONYMS. *Serpent,* Buc Bur Brr Cle Neb Rce, etc.

Sooly Qua. *Kei.*
  SEEDSMEN'S SYNONYMS. *Chinese Snake,* Kei.

Star of the West. Bui.
  SIMILAR NAMES. Salzer's Morning Star.

Steele-Briggs' Evergreen. Entered as *Evergreen.*

Sterling. *CE.*

Stockwood Ridge. Bru.
  SIMILAR NAMES. Parisian Long White Ridge.

Sutton's Matchless. Entered as *Matchless.*

Sutton's Progress. Bng Thr.

Swan Neck. DD Mzy Vk.

Tailby Hybrid. Anb Bai Brt Btl Brk Bdg Bgs Bui *CE* Cle Cur DD Fst GH Ggy Gry Hns Hrn Hrs Hen Mnd Mau May Mhl MV M&S Mzy OV HP Pnt Rce Rob SC S&F Shm *Sox* Thr *Tpk* Vau Wea W&D.
  SIMILAR NAMES. Salzer's Giant Tailby Hybrid.
  SEEDSMEN'S SYNONYMS. *New Orleans Market,* Bui Fer.

Tait's Climax Forcing, Tait's Improved White Spine. Entered as *Climax Forcing* and *Tait's White Spine.*

Tait's Model. Tat. For similar names see *Model.*

Tait's White Spine. Tat. For similar names see *White Spine.*

Telegraph. Brd Brt Brk Bri Bru Bng Buc Bui C&J Crs Drr Ebe Elt RE Ewg Fqr Gra Gng Gry Hen MWJ Ken Lnr Liv JL Mnd JMM McK Mhl Mzy Pks Prn Ptt *Por* Pot Raw Ren *S&R* S&F Sim SB S&W Tat Thr *Til* Vau Vk Wea W&D.
  SIMILAR NAMES. Telegraph Forcing, Rollinson's Telegraph Forcing, Rollinson's Telegraph, Rollinson's Telephone, Telephone.
  SEEDSMEN'S SYNONYMS. *Astro,* JL. *English Frame,* C&J.

Telegraph Forcing. Koe Wer. For similar names see *Telegraph.*

Telephone. Ewg Gra. For similar names see *Telegraph.*

Tender and True. Bru Bng D&H Elt RE Fqr Gry Mhl Mzy Raw S&F Thr.
  SIMILAR NAMES. Carter's Tender and True.

Thorburn's Commercial Pickling. Blg Bgs Ebr Ggy Nol Thr.
  SIMILAR NAMES. Thorburn's 1896 Pickler.

Thorburn's 1896 Pickler. Thr.
  SIMILAR NAMES. See *Thorburn's Commercial Pickling.*

Thorburn's Everbearing, Thorburn's Evergreen. Entered as *Everbearing* and *Evergreen.*

Toledo Market Evergreen White Spine. HP.
  SIMILAR NAMES. See *Evergreen White Spine.*

Triumph. Pot.

Vaughan's Improved White Spine. Entered as *White Spine.*

Vaughan's Prolific Forcing. Vau. For similar names see *Green Prolific.*

Vick's Early Chinese, Vick's Perfection White Spine. Entered as *Early Chinese* and *Perfection White Spine.*

Vincent's Peerless. Entered as *Peerless.*

Walker's Prolific. RE. For similar names see *Green Prolific.*

Washington White Spine. *LB.* For similar names see *White Spine.*

Wernich's Chicago Pickling. Entered as *Chicago Pickling.*

Westerfield. Ebr Iow Roc. For similar names see *Chicago Pickling.*

Seedsmen's synonyms. *Chicago,* Ebr.

Westerfield Chicago Pickling. Alr Ar Btl Brd Ber *CE* Cle Evr Frd GH TG Hst H&C Hse Iml J&S Kra Man MV Ree SC S&O Shm Sim Sox Spf Tem Van Wd WS Yng Y&H.

Similar names. See *Chicago Pickling.*

Westerfield Pickling. Fer Ham Lam *Lnr* Liv May NK OV Por S&R S&B SB *Tpk* Vk.

Similar names. See *Chicago Pickling.*

Seedsmen's Synonyms. *Chicago Pickling,* Bkt Btl Fer Lam Liv NK, etc.

West India Burr. Grw Mzy. For similar names see *Gherkin.*

West India Gherkin. Alr Brt Btl Brk Bgs Brn Bru Buc Bui Bur *Brr* C&J *CE* C&B CF Crs D&H DD Ebe Elt Ewg Fqr Fst Frd Ger GH Gra GN Ggy Gry Hrm Hrs Hrv Hst Hrn *H&C* Hlm Hop Hse Iow RHJ J&S *Jns* K&W Ken Lnr Liv May JCM M&S Mzy *Nol* Pnt Ptt Poo Pot Pri Raw Ren Ree Rob Roc S&O Sie Sim Stk S&H Tem Thm Vl Vin Wea W&D Yng.

Similar names. See *Gherkin.*

Seedsmen's synonyms. *Burr,* Bui Hen Iow J&S Lnr Raw, etc. *Gherkin,* Eic. *Jerusalem Pickle,* Liv.

White Albino. Mic. For similar names see *Albino.*

White Apple Shape. Ger.

White Dutch. CE Del.

White Erfurt Spine. Sal.

Similar names. Glory of Erfurt.

White German. Sal.

Similar names. Long German, Giant German.

White India. Alr Shm.

Similar names. Empress of India.

Seedsmen's synonyms. *White Pearl,* Alr.

White Japan. Fst Liv Mzy. For similar names see *Japanese Climbing.*

Seedsmen's synonyms. *White Pearl,* Liv.

White Pearl. Bel Bgg Brk Bgs Bru Bur *CE* Cle Col D&C Fmr Fqr Frd Hrv Iow J&S Lnr Liv May Mls Mzy Pac Ptt Por Pri Raw Ren Ree Rob Shm Thr Vk.

Similar names. Burpee's White Pearl, Pearl.

Seedsmen's synonyms. *Japan White,* Liv. *White India,* Alr.

White Pera. Sal. For similar names see *Long Pera.*

White Snow. Lon.

White Spine. Bai Bak Brd Brt Bkt Ber *Bgg* Brk Bri Brn Brr Cam Chl Cle Col CF DD Drw Dun Eas Ebe Emr Ewg Fmr Fqr Fax Ger GH Gra Ggy Gry Gfg Grw TG Ham Hrm Hrn Hrv Hse J&S Jns K&W Ken Liv JL Lon Mgd Man PM May JCM JMM Mic MV Nef Nol NK OV *Pac* Pir Prn Pne Pnt Pot Pri Rob Rs S&F Sox Spf Thr *Tlh* Til *Tpk* T&B Vau Vin Wea Wer.

Similar names. Early Spine, Brunning's White Spine, Hastings' White Spine, Rawson's White Spine, Improved White Spine, Hammond's Improved White Spine, McMillan's Improved White Spine, Shumway's Improved White Spine, Tait's Improved White Spine, Improved Early White Spine, Cox's Improved Early White Spine, Holmes' Improved Early White Spine, Early White Spine, Maule's Early White Spine, Plant Seed Co.'s Early White Spine, Extra Early White Spine, Livingston's Extra Early White Spine, Improved Extra Early White Spine, Bolgiano's Improved Extra Early White Spine, Simmers' Improved Extra Early White Spine, Moore & Simon's Matchless White Spine, Sutton's Matchless, Perfection White Spine, Vick's Perfection White Spine, Buist's Perfection Early White Spine, Bloomsdale White Spine, Washington White Spine, Breck's Forcing White Spine, Baltimore White Spine. See also *Cuthill's White Spine, Bennett's White Spine, Fordhook White Spine, Arlington White Spine, Hill's Forcing White Spine, Extra Long White Spine, Peerless White Spine, Evergreen White Spine.*

Seedsmen's synonyms. *Arlington,* Ham LB H&C. *Arlington White Spine,* Col Ggy Liv. *Peerless White Spine,* GH J&S PM Nol. *Arlington Improved,* Hse.

White Wonder. Ar Brd Btl Bel *Bgg* Bgs Brb Bur *CE* D&H Del Frd GH Ggy Hns Ham Hlm Hop *MWJ* Kra Mgd Mau May McK McM Neb JMP Pne Pri Rce Rob Shm Sim SB S&W Tem Wll Yng.

Similar names. Burpee's White Wonder, McMillan's White Wonder, Prescott Wonder.

Wild Cucumber. Buc Cur Eic Kos Neb.

Windsor Pickling. C&J.

DANDELION.

Dandelion. Bow Bdg *CE* Cle C&B D&H Fer Ger GH Ggy Hns *Hrm* Hrn Hrv Haw Iow Man MV Rce Rs S&F Tat Vk Wll.

Arlington. Ggy Rs.

Broad-Leaved. Cur Drr *Hrm* Hop *Lnr.*

Similar names. Improved Broad-Leaved, Large Broad-Leaved, Extra Early Broad-Leaved.

Cabbaging. Cle Hrm Lan Mhl M&S Nol Vau Yng.

Seedsmen's synonyms. *Improved Thick-Leaved,* Hrm. *Thick-Leaved,* Mhl M&S Nol Vau Yng.

Common French. Fer.

Cultivated. Lam.

Seedsmen's synonyms. *Common French,* Fer.

Endive Leaved. Mzy.

Extra Early Broad-Leaved. Tat. For similar names see *Broad-Leaved.*

French. Bgg CF Elt Lam Lnr Mzy *Nol* Rs W&D.

Similar names. French Garden, French Thick-Leaved.

French Garden. Brk *C&J CE* DD Lan Mnd S&W Thr Vin.

Similar names. See *French.*

French Thick-Leaved. Bkt Brk May Nef OV Raw *Tpk.*

Similar names. See *Thick-Leaved.*

Giant Erect. Tat.

Improved. Crs Ger. For similar names see *Improved Large-Leaved.*

Improved American. Bgg Brk Emr May Rs.

Similar names. Improved American Thick-Leaved.

Improved American Thick-Leaved. Brt *Sie.* For similar names see *Thick-Leaved.*

Improved Broad-Leaved. CF Fax Haw Mas Pot Tat.

Similar names. See *Broad-Leaved.*

Improved Cabbaging. SB.

Improved Large-Leaved. Buc Brb Bur Chl Cle Crs DD Elt Fqr Fst Grw Hst Hlm J&S Lnr Mls *Nol* Pg Hp Wea W&D Wdr.

Similar names. Improved, Large-Leaved, Very Early Improved.

Improved Large Thick Leaf. Man. For similar names see *Thick-Leaved.*

Improved Thick-Leaved. Bai *Bgg* Bri Bng Brw C&J *CE* CF Drr Dun Emr Fer Ggy Hrm J&S K&W Ken *Lnr* Pnt Ree Tem Thr Wat.

Similar names. See *Thick-Leaved.*

Seedsmen's synonyms. *Cabbaging,* Hrm.

Large Broad-Leaved. Brr. For similar names see *Broad-Leaved.*

Large-Leaved. C&B Hns Liv *Man* Neb Shm.

Similar names. See *Improved Large-Leaved.*

Large Thick-Leaved. Hrs SC. For similar names see *Thick-Leaved.*

Thick-Leaved. Mhl M&S Mzy Nol Sim Vau Yng.

Similar names. Large Thick-Leaved, Improved Thick-Leaved, Improved Large Thick Leaf, Improved American Thick-Leaved, French Thick-Leaved.

Seedsmen's synonyms. *Cabbaging,* Mhl M&S Nol Vau Yng.

Very Early Improved. Ggy. For similar names see *Improved Large-Leaved.*

EGGPLANT.

Baltimore. G&T.

Bell's Perfection Spineless. Entered as *Perfection Spineless.*

Black Beauty. *Bur.*

Black Pekin. Alr Bai Brd Bow Brk Buc Brr C&J Cam *CE* Cle C&B CF Crs Cur D&H DD Drr Drw Drm Ebe Elt Emr Ewg Fmr Fqr Fer GH Gra Ggy Gry Hrs Hst Hen Kos Lnr LB Liv Mnd Man Mau May Mhl Mls Min Mzy Neb NK Pg Pks Pir Prn Pnt Ptt Por Ree Roc S&R S&F S&O S&W Tat Tem Thr Vau Vk Vin Wea W&D Yng.

Black Snake. *Thr.*

Buckbee's Large Purple. Buc. For similar names see *Long Purple.*

Buckbee's White. Buc. For similar names see *Long White.*

Buist's Improved Large Spineless. Entered as *Buist's Large Spineless.*

Buist's Large Spineless. Bui. For similar names see *Spineless.*

Burpee's Black Beauty. Entered as *Black Beauty.*

Cherry Black. *Man.*

Dammann's Delicious. Koe.

Delicatessen. *Thr.*

Dwarf Round Purple. S&O. For similar names see *Round Purple.*

Earliest Dwarf Purple. Mau Thr. For similar names see *Early Dwarf Purple.*

Early Black Pekin. Bdg Mas.

Similar names. Early Large Purple, Smooth Stem Pekin.

Early Dwarf. Ggy. For similar names see *Early Dwarf Purple.*

Early Dwarf Oval. Stk. For similar names see *Early Dwarf Purple.*

Early Dwarf Purple. Mzy *Ree* Sim Thr Vau.

Similar names. Earliest Dwarf Purple, Extra Early Dwarf Purple, Extra Early Dwarf, Early Dwarf, Early Dwarf Oval.

Early Large Purple Smooth Stem Pekin. M&S.

Similar names. See *Early Black Pekin.*

Early Long Purple. Anb Brd Btl Ber Bow Brk Bdg Bgs Bur *CE* C&B Col Cox Crg Crs Cur DD Drr Elt RE Evr Fqr Fer *Fld* Frd Ger Gry Grw Hns Hrm Hrv Hst Hen Hop K&W Lnr LB Liv Mau May Mhl Min MV Mzy Neb Nef Pac Pg JMP Pnt Por Pug Qkr Raw Ree Ren Ree RP S&R S&F S&O Sox Spf SB Tem Tpk Trm Vk *Wat* Wea Web W&D.

Similar names. See *Long Purple.*

Early Long White. Ewg Gra. For similar names see *Long White.*

Early Purple. Sal. For similar names see *Long Purple.*

Early Purple Spineless. *Eic.*

Early Round. Ewg. For similar names see *Round Purple.*

Early Round Purple. Anb Bow *CE Fmr* GH TG *Iow* May Sox.
Similar names. See *Round Purple.*

Eichling's Early Purple. Eic. For similar names see *Long Purple.*

Eichling's Large Purple. Entered as *Large Purple.*

Excelsior Tree. Mau.

Extra Early Dwarf. Frd. For similar names see *Early Dwarf Purple.*

Extra Early Dwarf Purple. Hrs. For similar names see *Early Dwarf Purple.*

Extra Early Dwarf Round Purple. Bur Evr Fst Hbt M&S.
Similar names. See *Round Purple.*

Extra Early Long Purple. Roc. For similar names see *Long Purple.*

Extra Early Round Purple. Ber. For similar names see *Round Purple.*

Extra Large Long Purple. Buc. For similar names see *Long Purple.*

Ferry's Improved Large Purple. Entered as *Ferry's Large Purple.*

Ferry's Large Purple. Fer Ggy. For similar names see *Long Purple.*

Fordhook Improved Spineless. Entered as *Fordhook Spineless.*

Fordhook Spineless. Bur. For similar names see *Spineless.*

Griffing's Improved Spineless. Entered as *Griffing's Spineless.*

Griffing's Spineless. Gfg. For similar names see *Spineless.*

Guadaloupe. Bdg.
Seedsmen's synonyms. *Striped*, Bdg.

Hastings' Improved Large Purple Spineless. Entered as *Hastings' Large Purple Spineless.*

Hastings' Large Purple Spineless. Hst. For similar names see *Spineless.*

Henderson's Improved New York Spineless. Entered as *New York Spineless.*

Improved Large Purple, Improved Large Purple Spineless, Improved Large Spineless, Improved New York Purple, Improved Purple, Improved Purple Perfection, Improved Spineless. Entered as *Large Purple, Large Purple Spineless, Large Spineless, New York Purple, Purple, Purple Perfection*, and *Spineless.*

Landreth's Spineless. TB. For similar names see *Spineless.*

Landreth's Spineless Large Round Purple. Lan Stw.
Similar names. See *Round Purple.*

Landreth's Spineless Round Purple. Dlw Rim.
Similar names. See *Round Purple.*

Large New York Improved Spineless. Entered as *Large New York Spineless.*

Large New York Spineless. Blg. For similar names see *New York.*

Large Oval Dark Glossy Purple Spineless. Blg.
Similar names. See *Spineless.*

Large Purple. Bri *Cam* Ebe *Eic* GN Grw J&M Lam LB Roc Stk S&H Thm Wyg.
Similar names. See *Long Purple.*
Seedsmen's synonyms. *New Orleans Market*, Stk.

Large Purple Spineless. JL. For similar names see *Spineless.*

Large Round Purple. Bou. For similar names see *Round Purple.*

Large Smooth. Cle. For similar names see *Smooth Stem.*

Large Spineless. Cam Gdn. For similar names see *Spineless.*

Leonard's Improved New York Purple Spineless. Entered as *New York Purple Spineless.*

Livingston's Mammoth Purple. Liv. For similar names see *Mammoth Purple.*

Long Purple. Bai Brn Bru Bng CF Del Eas Emr Ewg GH Gra Ggy TG RHJ *Kei* JCM JMM *Pac Pnt* Pot Sal Shm Thr T&B Vin.
Similar names. Early Long Purple, Extra Early Long Purple, Extra Large Long Purple, Improved Purple, McMillan's Improved Purple, McMillan's Purple, Early Purple, Eichling's Early Purple, Large Purple, Buckbee's Large Purple, Improved Large Purple, Ferry's Improved Large Purple, Ferry's Large Purple, Thornless Large Oval Purple.

Long White. *Kei* Sim Thr.

Similar names. Early Long White, Long White Chinese, Buckbee's White, White Ornamental, White Egg-Shaped, White, Round White.

Long White Chinese. Bdg. For similar names see *Long White.*

Louisiana Purple. Btl Jns.

McMillan's Improved Purple. Entered as *McMillan's Purple.*

McMillan's Purple. McM. For similar names see *Long Purple.*

Mammoth Pearl. Fer Thr. For similar names see *White Pearl.*

Mammoth Purple. Liv.

Similar names. Livingston's Mammoth Purple, Mammoth Purple Spineless, Mammoth Smooth Stem.

Mammoth Purple Spineless. Tex. For similar names see *Mammoth Purple.*

Mammoth Smooth Stem. Mns. For similar names see *Mammoth Purple.*

Michell's New York Improved Large Purple. Entered as *New York Large Purple.*

New Jersey. *Cam* Cle Mic Rs S&R TB Y&H.

Similar names. New Jersey Improved, New Jersey Improved Large Purple, New Jersey Improved Early Large Purple, New Jersey Improved Large Smooth, New Jersey Improved Large Purple Smooth Stem, New Jersey Improved Large Dark Purple Smooth Stem, New Jersey Early Large Purple.

New Jersey Improved, New Jersey Improved Early Large Purple, New Jersey Improved Large Dark Purple Smooth Stem, New Jersey Improved Large Purple, New Jersey Improved Large Purple Smooth Stem, New Jersey Improved Large Smooth. Entered as *New Jersey, New Jersey Early Large Purple, New Jersey Large Dark Purple Smooth Stem, New Jersey Large Purple,* etc.

New Jersey Large Dark Purple Smooth Stem. Nol. For similar names see *New Jersey.*

New Jersey Large Purple. Fst Kg. For similar names see *New Jersey.*

New Jersey Large Purple Smooth Stem. J&S.

Similar names. See *New Jersey.*

New Jersey Large Smooth. Blg GH. For similar names see *New Jersey.*

New Orleans Market. Eic Stk.

Seedsmen's synonyms. *Large Purple,* Stk.

New York. Alr Ber Bou Brk CE Chl Cox Crg CA Del DD Drw Drm Ebe RE Fqr Fst Gry Gfg Hrm Hrn Hrs Hnt Iml Iow Kos Kra Lan Mas May JCM JMM Mic Mhl Mzy Nef Old HP Prn Pot RP Sox Spf SB Stw Thm Thb Trm Wat Web Wer Wll Yng.

Similar Names. New York Purple, New York Improved Purple, New York Large Purple, New York Improved Large Purple, Michell's New York Improved Large Purple, Salzer's New York Purple, New York Improved Oval Purple, New York Improved White, New York Giant, New York Market, New York Giant Round Purple, New York Improved Large Round Purple, New York Improved Round Purple, New York Spineless, New York Giant Spineless, New York Improved Spineless, New York Improved Purple Spineless, Large New York Improved Spineless. New York Improved Large Purple Spineless, Leonard's Improved New York Purple Spineless, Henderson's Improved New York Spineless.

New York Giant. Koe. For similar names see *New York.*

New York Giant Spineless. Chl. For similar names see *New York.*

New York Giant Round Purple. Bgs. For similar names see *New York.*

New York Improved, New York Improved Large Purple, New York Improved Large Purple Spineless, New York Improved Large Round Purple, New York Improved Oval Purple, New York Improved Purple, New York Improved Purple Spineless, New York Improved Round Purple, New York Improved Spineless, New York Improved White. Entered as *New York*, *New York Large Purple*, *New York Large Purple Spineless*, *New York Large Round Purple*, etc.

New York Large Purple. Ar Bow Buc Bur Drr Evr Gng Grw Ham Hst Liv Loh PM Mhl Mls M&S HP Por Roc S&R Tex Tpk Vau.

Similar names. See *New York.*

New York Large Purple Spineless. J&S Nol Sim Wdr.

Similar names. See *New York.*

New York Market. *Eic* Stk. For similar names see *New York.*

New York Oval Purple. Pnt SC S&F. For similar names see *New York.*

New York Purple. Bai Bak Brd Bel Bgg Bdg Bgs Brn Bui Brr C&J Cam *CE* Col Cok Cox D&H Ebr Emr Ewg Fmr Fst Fax Fld Ger Gls Gdn Gra TG Hrv Hly Hlm Hop Hse H&P Jac K&W Ken Kg Lea Mnd Mgd Man Mns Mau *McK* Min MV Neb NK Pac JMP Pir Pri Pug Qkr Raw Ree Ren Rce Sal Shw S&O Sie Til T&B *Vl* Vin W&D Wlt Wd Wdr WS.

Similar names. See *New York.*

Seedsmen's synonyms. *Large Oval Purple*, Bdg. *Round Purple*, Bdg.

New York Purple Spineless. Bng CF Crs Hde Lnr Rce Vk.

Similar names. See *New York.*

New York Round Purple. Btl Bru Cle Ggy. For similar names see *New York.*

New York Spineless. Brt Bkt Bri Brr *Cam* C&B Cur Eic Elt Frd GH Hen H&C Kg May Ptt Poo S&O S&W Tem Thr Wea.

Similar names. See *New York.*

New York White. NK. For similar names see *New York.*

Pearl. Bur Brr Eic Lnr Pug Sim. For similar names see *White Pearl.*

Perfection Spineless. *Bel* Gra. For similar names see *Purple Perfection.*

Prolific Tree. *Chl.*

Purple. Alx. For similar names see *Long Purple.*

Purple Perfection. Brw TB.

Similar names. Purple Perfection Spineless, Perfection Spineless, Tait's Purple Perfection, Improved Purple Perfection.

Purple Perfection Spineless. Gra. For similar names see *Purple Perfection.*

Purple Spineless. Bou. For similar names see *Spineless.*

Round French. Thr.

Round Purple. Brn MV Rce *Sox* Vk.

Similar names. Early Round Purple, Extra Early Round Purple, Extra Early Dwarf Round Purple, Dwarf Round Purple, Landreth's Spineless Round Purple, Landreth's Spineless Large Round Purple, Large Round Purple Spineless, Large Round Purple, Early Round.

Seedsmen's synonyms. *Improved New York Purple*, Bdg. *Large Oval Purple*, Bdg.

Round White. Shm Thr. For similar names see *Long White.*

Salzer's New York Purple. Entered as *New York Purple.*

Scarlet Chinese. Bdg Tat Thr.

Spineless. *Chl* Cle TG Hbt Jac WS.

Similar names. Improved Spineless, Large Spineless, Purple Spineless, Improved Large Purple Spineless, Hastings' Improved Large Purple Spineless, Buist's Improved Large Spineless, Buist's Large Spineless, Griffith's Improved Spineless, Griffing's Spineless, Landreth's Spineless, Fordhook Improved Spineless, Fordhook Spineless, Improved Large Spineless, Large Oval Dark Glossy Purple Spineless, Hastings' Large Purple Spineless.

Striped. Bdg Ewg Gra Thr.

Similar names. Tricolor Large Streaked Purple Green and White.

Seedsmen's synonyms. *Guadaloupe*, Bdg.

Tait's Purple Perfection. Tat. For similar names see *Purple Perfection.*

Thornless Large Oval Purple. SC. For similar names see *Long Purple.*

Seedsmen's synonyms. *Thornless Smooth Stem,* SC.

Tomato. Buc.

Tricolor Large Streaked Purple Green and White. Koe.

Similar names. See *Striped.*

White. Hrm K&W Mau *McK* Ren Roc Sal Tat. For similar names see *Long White.*

White Egg-Shaped. Bdg. For similar names see *Long White.*

White Ornamental. Crs. For similar names see *Long White.*

White Pearl. Alx Alr Btl Brk Chl CCo Col *Eic* Evr Frd Ggy Grw Hns Iow J&M Liv JL May Mzy Rce S&O S&H Tem Thm Vau Wlt.

Similar names. Pearl, Mammoth Pearl.

Wild. Bdg.

ENDIVE.

Berlin Giant. Bri J&S.

Bordeaux. M&S.

Similar names. Simon's Bordeaux.

Broad-Leaved. *Blg* Bgg Brk Bdg Bri Bui CE Cox Ebe Eic Fmr GH Lan MV Pri SC *Sox* Stw S&W Thr Vau Wer.

Similar names. Green Broad-Leaved, White Broad-Leaved, Yellow Broad-Leaved. See also *Broad-Leaved Batavian, Broad-Leaved Escarolle.*

Seedsmen's synonyms. *Batavian,* Bui SC. *Escarolle,* Ebe Thr.

Broad-Leaved Batavian. Bai Brd Brt Btl Bkt Bow Bui Bur C&J *Cam CE* Cle C&B Col CF Crs Cur Drr Elt Emr Evr Fqr Fst Fer Frd Ger Gls Ggy Gry TG Hns Hrn Hrv Hen H&C Hlm Hop Iml Jns Koe Lam Lnr Liv JL Loh Man Mau May JCM JMM Mhl Mls Min M&S Mrs Mzy Nef Nol OV Pac HP JMP Pir Prn Ptt Por Pot Raw Rce Roc Sal S&R SC S&F S&O Shm Sie Sox Til *Tpk* Trm T&B Vl Vk Vin Wea W&D Wdr Y&H.

Similar names. Green Broad-Leaved Batavian, White Broad-Leaved Batavian, White Batavian, Imperial Broad-Leaved Batavian, Round-Leaved Batavian.

Seedsmen's synonyms. *Escarolle,* Bow Drr Fqr Hen J&S Raw, etc. *Scarole,* Vin.

Broad-Leaved Escarolle. Bng DD Eic J&S. For similar names see *Escarolle.*

Brussels Chicory. Bdg.

Champion Moss Curled. Lam *Vau.* For similar names see *Moss Curled.*

Curled. Ewg Gra.

Dallwig's Green Curled, Dallwig's Yellow Curled. Entered as *Green Curled* and *Yellow Curled.*

De Ruffec. Fqr.

Similar names. Large Green Curled de Ruffec.

Dreer's Giant Fringed. Entered as *Giant Fringed.*

Early Green Curled. Cam Sim. For similar names see *Green Curled.*

Seedsmen's synonyms. *French Moss Curled,* Sim.

Early Summer Moss Curled. Mzy. For similar names see *Moss Curled.*

Escarolle. *Blg* Crs Pnt Raw.

Similar names. Broad-Leaved Escarolle.

Seedsmen's synonyms. *Broad-Leaved,* Ebe Thr. *Broad-Leaved Batavian,* Bow Cox Drr Fqr Hen J&S, etc. *Broad-Leaved Green,* Pnt. *Broad-Leaved Imperial Batavian,* Sim.

Ever White Curled. RE Fer *Gls* J&S LB Liv Mau Mzy Vau.

Similar names. See *White Curled.*

Extra Fine Curled. *Eic.*

Fine Curled. Ebe.

Fine Moss Curled. Ggy Shm Vau. For similar names see *Moss Curled.*

French Curled. Bdg. For similar names see *Green Curled.*

Seedsmen's synonyms. *Moss Curled,* Bdg.

French Green Curled. TB Vl. For similar names see *Green Curled.*

French Green Moss Curled. Ger Neb. For similar names see *Moss Curled.*

French Moss Curled. Alr Cle C&B Elt Fqr Hen May Pac Sim Vin.

Similar names. See *Moss Curled.*

Seedsmen's synonyms. *Early Green Curled.* Sim.

Giant Fringed. Bur Drr Hbt Iow *J&S* Mhl Mrs.

Similar names. Dreer's Giant Fringed.

Seedsmen's synonyms. *Oyster,* Bur Mhl Mrs.

Giant Green Curled. *Wat.*

Green Broad-Leaved. *Dlw* Mnd Pnt. For similar names see *Broad-Leaved.*

Seedsmen's synonyms. *Escarolle,* Pnt.

Green Broad-Leaved Batavian. Ken.

Similar names. See *Broad-Leaved Batavian.*

Green Curled. Alx Alr Ar Bai Bak Brt Btl *Bel* Blg Bow Bgg Brk Bgs Bri Bru Bng Buc Bui Bur C&J *Cam* CE C&B CF Cox Dlw D&H Del Drw *Dun* Ebr Eic Elt Emr RE Evr Fmr Fqr Fst Fax Fer Frd Gdn Gry Gfg G&T Grw TG Hns Ham Hrm Hrn Hrs Hst Hen Hbt *H&C* Hlm Hop Hnt H&P Iml Iow Jac RHJ J&M Jns Kei K&W Ken Kg Kos Lam Lea Lnr Liv JL Mgd PM Mns Mas Mau May JCM JMM McM Mel Mhl Mls Min Mrs Neb Nef NI NK OV Old *Pac* Pg Pks HP Pir Prn Pne Pnt Poo Por Pri Pug Raw Ren *Rim* Roc RP Sal S&R SC S&F Shw Sie Sox Spf SB Stw S&H S&W Tat Tem Tex Thm AGT Til Tpk Trm T&B *Vl* Vau Vk Vin Wat Wea Web W&D Wer Wll Wd WS Yng Y&H.

Similar names. Early Green Curled, Large Green Curled, Long Green Curled, Small Green Curled, Improved Green Curled, Dallwig's Green Curled, Mammoth Green Curled, French Green Curled, London Green Curled, French Curled, London Curled, Green Curled Edge, Green Curled Winter, Green Curled Summer, Green Curled Italian, Moore's Mammoth Green Curled Italian, Mammoth Green Curled Italian.

Seedsmen's synonyms. *Frisée de Meaux,* Eic. *Winter,* Frm.

Green Curled Edge. Dlw. For similar names see *Green Curled.*

Green Curled Italian. Pot. For similar names see *Green Curled.*

Green Curled Summer. Bdg DD Hde Kra Rce.

Similar names. See *Green Curled.*

Green Curled Winter. *CE* Cle C&B Crs Cur DD Drr Ebe GH Hde H&C Kra Mnd MV Mzy Ree Rce S&O Thr.

Similar names. See *Green Curled.*

Green Moss Curled. Brd Dlw. For similar names see *Moss Curled.*

Imperial Broad-Leaved Batavian. Sim.

Similar names. See *Broad-Leaved Batavian.*

Seedsmen's synonyms. *Escarolle,* Sim.

Improved Green Curled. Entered as *Green Curled.*

Laciniated. Thr.

Large Curled. Ger.

Seedsmen's synonyms. *Ruffled-Leaved,* Ger.

Large Green Curled. Bkt Fer Gls Lan Liv Loh Mrs Mnd Rs Thr.

Similar names. See *Green Curled.*

Large Green Curled de Ruffec. Thr. For similar names see *De Ruffec.*

Large Round Black. *Lan.*

Lettuce-Leaved. Crs *Hde.*

Seedsmen's synonyms. *Broad-Leaved White,* Crs.

London Curled. Eas. For similar names see *White Curled.*

London Green Curled. Ger Ggy Ptt Wdr. For similar names see *Green Curled.*

Long Green Curled. Pac. For similar names see *Curled.*

Mammoth Green Curled. Brw GH J&S Nol Spf.

SIMILAR NAMES. See *Green Curled.*

Mammoth Green Curled Italian. M&S. For similar names see *Green Curled.*

Model Prize Curled. *Man.*

Moore's Mammoth Green Curled Italian. Entered as *Mammoth Green Curled Italian.*

Moss Curled. Bkt Brk Bdg Bgs Bri Brn Buc Bui Brb Brr CE Col CF Crs Drm Ewg Fmr Fer Frd GH Gra GN Gry Grw TG Hrn Hrs Hrv Haw Jns Ken Kos Lan Lnr LB Liv Loh Mnd Man JCM JMM Mic Mrs Pg JMP Pri Pug Rce Roc Rs Sal S&R S&O Sox SB Stw Vau Vk W&D.

SIMILAR NAMES. Champion Moss Curled, Fine Moss Curled, French Moss Curled, French Green Moss Curled, Green Moss Curled, Salzer's Moss Curled, Yellow Moss Curled, White Moss Curled, Early Summer Moss Curled.

SEEDSMEN'S SYNONYMS. *French*, Bdg. *Parisian Curled*, Brk. *White Curled*, Frd.

Oyster. Bur *J&S Mau* Mrs *Wat.*

SEEDSMEN'S SYNONYMS. *Giant Fringed*, Bur Mhl Mrs.

Paragon Curled Summer. M&S. For similar names see *Paragon Curled Winter.*

Paragon Curled Winter. M&S.

SIMILAR NAMES. Paragon Curled Summer.

Parisian Curled. Brk.

SEEDSMEN'S SYNONYMS. *Moss Curled*, Brk.

Round-Leaved Batavian. Kei. For similar names see *Broad-Leaved Batavian.*

Ruffled-Leaved. Ger.

SEEDSMEN'S SYNONYMS. *Large Curled*, Ger.

Salzer's Moss Curled. Entered as *Moss Curled.*

Savoy Leaved. Thr.

SEEDSMEN'S SYNONYMS. *Pancalier*, Thr.

Self-Blanching. DD Ebr.

Simon's Bordeaux. Entered as *Bordeaux.*

Small Green Curled. Loh. For similar names see *Green Curled.*

Staghorn. Mrs.

White Batavian. Cam. For similar names see *Broad-Leaved Batavian.*

White Broad-Leaved. Crs *Hde.* For similar names see *Broad-Leaved.*

SEEDSMEN'S SYNONYMS. *Lettuce Leaved*, Crs.

White Broad-Leaved Batavian. Ken.

SIMILAR NAMES. See *Broad-Leaved Batavian.*

White Curled. Ar Bkt Bow Brk Bdg Bri Bru Bui Bur Brr C&J *CE* Cle C&B CF Crs Del Drr Dun Ebr Elt Emr Ewg Fqr Fst Frd Gls Gdn GH Gra Grw TG Hrm Hrv Hen Hbt H&C Hlm Hop Iml Jac MWJ J&M J&S Kei K&W Ken Koe Lam Lan Lnr Liv Loh Mgd Man Mns Mau May Mhl Mrs Neb NI JMP Pnt Por Pri Raw Ree Ren Rce Rim Roc RP S&R SC S&O Sie Spf S&H S&W *Tem* Tex Thm Thr Til Vl Vau Vk *Wat* Wea Web W&D Yng.

SIMILAR NAMES. White Curled Guillande, Ever White Curled.

SEEDSMEN'S SYNONYMS. *Moss Curled*, Frd.

White Curled Guillande. M&S. For similar names see *White Curled.*

White Moss Curled. HP. For similar names see *Moss Curled.*

Winter. Fmr.

SEEDSMEN'S SYNONYMS. *Green Curled*, Fmr.

Yellow Broad-Leaved. Dlw. For similar names see *Broad-Leaved.*

Yellow Curled. Dlw.

Yellow Moss Curled. Dlw. For similar names see *Moss Curled.*

FETTICUS. (See CORN SALAD.)

FLAG. (See LEEK.)

FRENCH SPINACH. (See ORACH.)

GARLIC.

Garlic. Ar Brd Btl Bdg Buc C&B Col Crs Cur D&H Ebe Eic RE Evr Fst Frd Ger Ggy H&C Iow MWJ J&S Kei Kos Kra Lam Lnr LB JL Mnd Mgd Mau Mhl HP Ptt Pri Ren Roc Sim Stk S&W Tat Vau W&D Wer.

Erfurt. H&C.
Large Italian. Bru.

GERMAN CELERY. (See CELERIAC.)

GRASS NUTS. (See CHUFAS.)

GUMBO. (See OKRA.)

HERBS.

(Excluding those used only for medicinal purposes.)

Agrimony. Nol Thr.

Alecost. Iow. Also called *Balsam Mint* and *Costmary.*

Angelica. Bkt Bru Ewg Ger GH Gra Nol Raw Shm Thr.

Anise. Alx Alr Anb Ar Bak Brd Brt Btl Bkt Ber Bow Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Bur Brr Chl Cle C&B Col Cox Crs Cur Dlw D&H Del DD Drr Drm Eas Ebe Eic Elt Emr RE Ewg Fmr Fqr Fst Fer Fld Frd Ger GH Gra Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrv Hen H&C Hlm Hop Hse Iow MWJ J&M J&S Kei K&W Ken Kg Kos Kra Lam Lan Lnr LB Liv JL Mnd Mgd Man Mns Mau May JCM JMM Mel Mhl Mls Min MV M&S Mzy Neb NK OV Pg Pks HP Pir Pnt Ptt Poo Por Pot Pri Raw Ree Ren Rce Sal S&R S&F S&O Shm Sie Sim Sox Spf Stk SB Stw S&W Tat Tem Tex Thm Thr Thb AGT Til Tpk T&B Vau Vk Vin Wea W&D Wer Wll Wdr Yng.

Artemisia. Iow. Also called *Brotan.*

Asperula Odorata. Bkt Dlw Thr.

Synonyms: *Woodruff, Sweet Woodruff, Woodroof, Waldmeister.*

Balm. Ar Brd Brt Btl Bkt Ber Bow Brk Bdg Bru Bng Buc Bui Bur Chl Cle C&B Col CF Crs Cur D&H Del DD Drr Drm Dun Eas Ebe Eic Elt RE Ewg Fmr Fqr Fst Fer Frd Ger GH Gra Gry Grw TG Hns Ham Hde Hrm Hrn Hen H&C Hlm Hop Hse Iml Iow MWJ J&M J&S Kei K&W Kg Kra Lam Lnr LB Liv Man Mau May Mls MV M&S Mzy Neb Nol NK OV Pg Pks HP Pir Pnt Ptt Poo Por Pot Pug Raw Ree Rce Sal S&R S&F S&O Shm Sim Spf Stk SB S&H S&W Tem Thm Thr Vau Vk Wea W&D Wer Wll Wdr.

Seedsmen's synonyms. *Melissa,* Kei.

Balm, Sweet. JCM JMM OV Ren.

Balsam Mint. Iow. Also called *Alecost* and *Costmary.*

Basil. Ar Cle Emr RE Fqr G&T Hde Kei Koe Lnr Loh Man Mns.

Synonyms: *Basilicum.*

Basil, Bush or Dwarf. Bru Mnd Nol Thr.

Basil, Sweet. Alx Alr Anb Bak Brt Btl Bkt Blg Bow Brk Bdg Bri Brn Bru Bng Buc Bui Bur C&B Col CF Cox Crs Cur Dlw D&H Del DD Drr Drm Eas Ebe Eic Elt Fst Fer Frd Ger GH Gra Ggy Gry Grw TG Hns Ham Hrn Hrv Hen H&C Hlm Hop H&P Iow MWJ J&M J&S K&W Ken Kg Koe Kos Kra Lam Lan LB Liv JL Mnd Mgd PM Mau May JCM JMM Mel Mhl Mls Min MV M&S Mzy Neb Nol NK Pg Pks HP JMP Prn Pnt Ptt Poo Por Pot Pug Raw Ree Ren Rce Sal S&R S&F S&O Shm Sim Spf SB S&H S&W Tat Tem Tex TB Thm Thr Til T&B Vau Vk Vin Wea W&D Wer Wll Wdr Yng.

Basil, Sweet Large-Leaved. SC Stk.

Basil, Sweet Small-Leaved. SC Stk.

Basilicum. Fmr. Also called *Basil.*

Bene. Alx Bkt Bdg Bng Bui Bur Cle C&B Cur DD Drr Drm Eic Elt Fst G&T Hen H&C Hlm MWJ Kra LB Liv Mns Mau May M&S Mzy Nol OV Pnt Pri Raw Sal Stk S&W Vau Vk Wea W&D.

Bergamot, Scarlet-Flowering. Iow.

SEEDSMEN'S SYNONYMS. *Monarda didyma,* Iow. *Oswego Tea,* Iow.

Bohnen Kraut. Drm Kra Liv. Also called *Summer Savory.*

Borage. Brd Btl Bkt Brk Bdg Bru Buc Bui Bur Cle C&B Cox Crs Cur Dlw DD Drr Drm Eas Ebe Eic Elt Emr RE Fmr Fqr Fst Fer Frd Ger GH Gry G&T Grw Hns Hrn Hrs Hen H&C Hlm Hop Iow MWJ J&M J&S Kei Ken Kra Lam Lan Lnr LB Liv JL Loh Mnd Mns Mau May McK Mel Mhl M&S Mzy Neb Nol NK OV Old Pks HP Pnt Ptt Por Pot Pri Pug Raw Ree Ren Rce Rt Sal S&R SC S&F S&O Shm Sie Sim Spf Stk SB S&W Tat Thm Thr Til T&B Vau Vk Vin Wea W&D Wer Yng.

Brotan. Iow. Also called *Artemisia.*

Calamus. Iow. Also called *Sweet Flag.*

Caraway. Alx Alr Ar Bak Brd Brt Btl Bkt Ber Bow Brk Bdg Bgs Brn Bru Bng Buc Bui Bur Brr Chl Cle C&B Col CF Cox Crs Cur Dlw D&H Del DD Drr Drm Eas Ebe Eic Elt Emr RE Fmr Fqr Fst Fax Fer Fld Frd Ger Gls GH Gra Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hen H&C Hlm Hop Hse H&P Iml Iow MWJ J&M J&S Jns Kei K&W Ken Kg Kos Kra Lam Lan Lnr LB Liv JL Mnd Mgd Man Mau May JCM JMM Mel Mhl Mls Min MV M&S Mzy Neb Nol NK OV Pks HP Pir Pnt Ptt Poo Por Pri Raw Ree Ren Rce Rs Sal S&R SC S&F S&O Shm Sie Sim Spf Stk SB Stw S&H S&W Tat Tem Tex TB Thm Thr AGT Til T&B Vau Vk Vin Wea Wer Wll Wdr Y&H.

Catmint. Btl Bur Drm Fmr Fer H&C Iow J&M Kra Liv MV M&S NK Raw S&O Sim Thm T&B Vau Wer.

SYNONYMS. *Catnip.*

Catnip. Btl Bow Brk Bdg Bru Buc Bur C&B Cur D&H Del DD Drm Eas Elt Emr Ewg Fmr Fqr Fst Fer Frd Ger GH Gra Ggy Gry Grw Hns Hen H&C Hlm H&P Iow MWJ J&M J&S Kra Lam LB Liv Mnd Mau MV M&S Mzy Neb Nol NK Pks HP Pir Poo Por Pot Pri Raw Ren Rt Sal S&R S&F S&O Shm Sim Stk SB Tat Thm Thr T&B Vau Vk Vin Wea W&D Wer Wll.

SYNONYMS. *Catmint.*

Chervil, Sweet. See *Sweet Cicely.*

Cicely, Sweet. Mau. Also called *Sweet Chervil.*

Coriander. Alx Alr Ar Bak Brd Brt Btl Bkt Ber Bow Brk Bdg Bri Bru Buc Bui Bur Brr Chl Cle C&B Col CF Cox Crs Cur Dlw D&H Del DD Drr Drm Eas Ebe Eic Elt RE Ewg Fmr Fst Fer Frd Ger GH Gra Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hen H&C Hlm Hop Hse H&P Iow MWJ J&M Kei K&W Ken Koe Kos Kra Lam Lan Lnr LB Liv JL Mnd Mgd Man PM Mau May JCM JMM McM Mel Mhl Mls MV Min M&S Mzy Nol NK OV Pg Pks HP JMP Pnt Ptt Poo Por Pot Pri Raw Ree Rce Rs Sal S&R SC S&F S&O Shm Sie Sim Sox Spf Stk SB Tat Tem Tex Thm Thr Thb AGT Til Tpk T&B Vau Vk Vin Wea W&D Wer Wll Wdr Yng.

Costmary. Iow. Also called *Alecost* and *Balsam Mint.*

Cumin. Bkt C&B Cox Drr Ger Hen MWJ LB Liv Mau M&S.

Dill. Alx Alr Anb Ar Bak Brd Brt Btl Bkt Bow Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Bur Brr C&J CE Chl Cle C&B Col CF Cox Crs Cur Dlw D&H Del DD Drr Drm Ebe Eic Elt Emr RE Ewg Fmr Fqr Fst Fer Fld Frd Ger GH Gra Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hen H&C Hlm Hop Hse H&P Iow MWJ J&M J&S Jns Kei K&W Ken Kg Koe Kos Kra Lam Lan Lnr

LB Liv JL Loh Mnd Mgd Man PM Mns Mau May JCM JMM McM Mel Mhl Mls MV M&S Mzy Neb Nol NK OV Old Pks HP JMP Pir Pnt Ptt Poo Por Pot Pri Pug Raw Ren Ree Rs Sal S&R SC S&F S&O Shm Sie Sim Sox Spf Stk SB Stw Tat Tem Tex Thm Thr AGT Til T&B Vau Vk Vin Wea Web W&D Wer Wll Yng Y&H.

Dill, Mammoth. Blg Nol Thr W&D Wdr.

Elecampane. Bkt MWJ LB M&S Nol Thr.

Estragon. Mzy Thr. Also called *Tarragon.*

Fennel. Anb Ar Brd Bkt Bng Brk Brr Cur Dlw D&H DD Drm Eas Elt Ewg Fmr Fqr Fst Gra Grw Hrm Hrn Hlm Hse H&P Iow MWJ Kei Kg Kos Kra Lan Lnr Liv Man May JCM JMM McM Mel Mhl Min Mzy Nol OV HP JMP Prn Pnt Raw Rs SC S&O Spf SB Tat T&B Vau W&D Wll Yng.

Fennel, Bolognese Sweet. Koe.

Fennel, Celery-Rooted. M&S.

Fennel, Celery-Rooted Florence. Buc.

Fennel, Florence. C&B J&S LB MV Ptt Thr W&D.

Fennel, Large Sweet. Vk.

Fennel, Naples. Mv Ptt Thr W&D.

Fennel, Sweet. Alx Alr Btl Bow Brk Bdg Brn Bru Buc Bui Bur Chl Cle CF Cox Crs Del Drr Ebe Eic Emr RE Fer Frd Ger GH Ggy Gry G&T Hns Ham Hde Hrv Hen H&C Hop J&M J&S K&W Ken Lam LB Liv Mnd Mgd Mau JCM JMM Mls M&S Neb NK Pac Pg Pks Ptt Por Pot Pri Ree Ren Rce Sal S&R S&F Shm Sie Sim Stk Tex Thm Thr Til Tpk Vin Wea Wer Wdr.

Hibiscus Sabdariffa. See *Roselle.*

Hop. Bkt Brk Bdg Buc Bur C&B DD Drm Fst Ger Hen Hop Iow MWJ Kra Lan LB Liv Mhl Por Sal Sim Sox Thr Vau Vk Vin.

Horehound. Alr Ar Bak Brd Brt Btl Bkt Ber Brk Bdg Brn Bru Buc Bui Bur Brr Chl Cle C&B Col Crs Cur D&H Del DD Drr Drm Eas Ebe Eic Elt Emr RE Ewg Fmr Fqr Fst Fer Fld Frd Ger GH Gra Ggy Gry Grw TG Hns Ham Hrm Hen H&C Hlm Hop H&P Iow MWJ J&M J&S Kei K&W Ken Kos Kra Lam Lnr LB Liv JL Mnd Man Mau May JCM JMM Mel Mhl Mls M&S Mzy Neb Nol NK OV Pks HP Pir Pnt Ptt Poo Por Pot Pug Raw Ree Ren Rce Sal S&R S&F S&O Shm Sim Stk SB Tat Tem Thm Thr AGT T&B Vau Vk Wea W&D Wer Wll Wdr.

Hyssop. Alr Bak Btl Bkt Bow Brk Bdg Bru Buc Bui Cle C&B Col Crs Cur D&H DD Drm Eic Elt RE Ewg Fmr Fqr Fer Ger GH Gra Ggy Gry Grw Hns Hrm Hen Iow MWJ J&M J&S Kei K&W Ken Kra Lam Lnr LB Liv Mnd May JCM JMM M&S Mzy Neb Nol OV Pks Pir Pot Pri Pug Raw Ren Sal S&F S&O Sim SB Tat Thm Thr Vau Vk W&D Wer Wll.

Lavender. Alr Ar Bak Brd Brt Btl Bkt Ber Blg Bow Brk Bdg Bri Brn Bru Bng Buc Bur Brr C&J CE Chl Cle C&B Col CF Cox Crs Cur Dlw D&H Del DD Drr Drm Eas Ebe Eic Elt Emr RE Ewg Fmr Fqr Fst Fer Fld Frd Ger GH Gra Ggy Gry G&T Grw Hns Ham Hrm Hrn Hrs Hrv Hen H&C Hlm Hop Hse H&P Iow MWJ RHJ J&M J&S Jns Kei K&W Ken Kos Kra Lam Lan Lnr LB Liv JL Loh Mnd Mgd PM Mns Mau May JCM JMM Mhl Mls Min M&S Mzy Neb Nol NK OV Pac Pg Pks HP Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr Raw Ree Ren Rce Sal S&R S&F S&O Shm Sim Spf Stk SB Stw S&H S&W Tat Tem Tex Thm Thr AGT Til T&B Vau Vk Vin Wea W&D Wer Wll Wdr Yng.

Lavender, Sweet. Hde.

Lemonade Plant. J&M.

SEEDSMEN'S SYNONYMS. *Roselle* (*Hibiscus sabdariffa*) J&M.

Lovage. Bkt Brk Fqr Gry Nol Pot S&F Sim Thr Wea.

Marigold, Pot. Bru Buc Bui Drm Eic RE Ewg MWJ J&S Kra Liv Mnd Mhl Min Nol Raw Stk SB Tat Thr.

Marjoram. Ar Cam Ebe Fmr Fqr G&T Grw Hns Hrn Iml Kei Loh Man PM Mns Pug Qkr S&O Spf.

Marjoram, Pot. Bkt Bru DD Elt Ewg Gra Hen LB Mnd Nol Pks Ren SB Thr W&D.

Marjoram, Sweet. Alx Alr Anb Bak Brd Brt Btl Bkt Blg Bow Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Bur Brr C&J CE Chl Cle C&B Col CF Cox Crs Cur Dlw D&H Del DD Drr Drm Dun Eas Eic Elt Emr RE Ewg Fst Fax Fer Frd Ger GH Gra Ggy Gry TG Ham Hde Hrm Hrs Hrv Hen H&C Hlm Hop Hse H&P Iow MWJ RHJ J&M J&S Jns K&W Ken Kg Koe Kos Kra Lam Lan Lnr LB Liv JL Mnd Mgd Mau May JCM JMM McM Mel Mhl Mls Min MV M&S Mzy Neb Nol NK OV Old Pac Pks HP JMP Prn Pne Pnt Ptt Poo Por Pot Pri Raw Ree Ren Rce Rim Rs RP Sal S&R SC S&F Shm Sie Sim Sox Stk SB Stw S&H S&W Tat Tex TB Thm Thr Thb AGT Til Tpk T&B Vau Vk Vin Wea Web W&D Wer Wll Wdr Yng Y&H.

Melissa. Kei.

Seedsmen's synonyms. *Balm*, Kei.

Mint. D&H Ebe Gra NK Pks Sim SB. Also called *Spearmint.*

Similar names. Catmint, Catnip, Spearmint, Spearmint (Variegated), Balsam mint.

Monarda Didyma. Iow.

Seedsmen's synonyms. *Scarlet-Flowered Bergamot*, Iow. *Oswego Tea*, Iow.

Opium Poppy. Buc Cle DD Ger Hen Iow J&S LB Mzy Neb Raw S&F Thr Vin W&D.

Oswego Tea. Iow. See also *Monarda didyma.*

Peppermint. Dlw Ebe Gra Man Nol Pks Pot Sim Thr Vk.

Pimpernel. Pnt. Also called *Salad Burnet.*

Pimpinella. Vau.

Purslane. Mnd Sal.

Roselle. Bur Ger Hbt J&M Thm.

Seedsmen's synonyms. *Lemonade Plant* (*Hibiscus sabdariffa*), J&M.

Rosemary. Alx Alr Brd Brt Btl Bkt Ber Bow Brk Bdg Brn Bru Buc Bui Bur C&J Chl Cle C&B Cox Crs Cur Dlw D&H Del DD Drr Drm Eas Ebe Eic Elt RE Ewg Fmr Fqr Fst Fer Frd Ger GH Gra Ggy Gry G&T Grw Hns Ham Hrn Hrs Hen H&C Hlm Hop Hse H&P Iml Iow MWJ RHJ J&M J&S Kei Ken Kos Kra Lam Lan Lnr LB Liv JL Loh Mnd Mau May JCM JMM Mel Mhl Mls Min MV M&S Mzy Neb Nol OV Old Pac Pks HP JMP Prn Pnt Poo Por Pot Pri Pug Raw Ree Ren Rce Sal S&R SC S&F S&O Shm Sim Spf Stk SB S&H S&W Tat Thm Thr AGT Tpk T&B Vau Vk Vin Wea W&D Wer Wll Yng.

Rue. Alr Brt Btl Bkt Bow Brk Bdg Brn Bru Buc Bui Bur Cle Cox Crs Cur D&H Drr Drm Ebe Eic Elt Emr RE Fmr Fqr Fst Fer Frd Ger GH Ggy Gry Grw Hns Ham Hrm Hrn Hlm Hop Iow MWJ RHJ J&M J&S Kei K&W Kra Lam Lnr Liv JL Mnd Mau May Mel MV M&S Mzy Neb Nol OV Pks HP Pir Pnt Ptt Por Pri Pug Raw Ree Ren Rce Sal S&R S&F S&O Shm Sim Spf Stk SB S&H S&W Tat Thm Thr Vau Vk Vin Wea W&D Wer.

Saffron. Anb Brd Brt Btl Bkt Ber Brk Bdg Brn Bru Buc Bui CE Cle C&B Col Crs Cur D&H Del DD Drm Eas Ebe Eic Elt Emr RE Ewg Fmr Fqr Fst Fer Frd Ger GH Gra Ggy Gry Hns Hrm Hrn Hrv Hen Hop H&P Iml Iow MWJ J&M J&S K&W Ken Kos Kra Lam Lnr LB Liv JL Mau May JCM JMM Mhl MV M&S Mzy Nol OV Pks HP Pnt Ptt Pot Pri Raw Ree Ren Sal SC S&F S&O Shm Spf SB S&W Tat Thm Thr Til Vau Vk W&D Wer Wll Y&H.

Sage. Alx Alr Anb Ar Bak Brd Brt Btl Bkt Ber Blg Bow Brk Bdg Bri Bru Bng Buc Bui Brb Bur Cam CE Chl Cle C&B CF Cox Crg Cur CA Dlw D&H Del DD Drr Drm Dun Eas Ebe Eic Elt Emr RE Ewg Fmr Fqr Fst Fax Fer Frd Ger GH

Gra Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hst Haw Hen H&C Hlm Hop Hse H&P Iml Iow Jer MWJ RHJ J&M J&S Jns Kei K&W Ken Kg Kos Kra Lam Lan LB Liv JL Loh Mnd Mgd Man PM Mns Mau May JCM JMM McK McM Mel Mhl Mls Min MV M&S Mzy Neb Nol NK OV Old Pac Pg Pks HP JMP Pir Pne Pnt Poo Pot Pri Pug Qkr Raw Ree Ren Rce Rim Roc Rs RP Sal SC S&F Sie Sim Sox Spf Stk SB Stw S&H S&W Tat Tem Tex TB Thm Thr Thb AGT T&B Vau Vk Vin Wea W&D Wer Wll Yng Y&H.

Sage, American Broad-Leaved. Roc.

Sage, Broad-Leaved. Brn Brr C&J Col Fld Gls Ggy Hrv Lnr Por S&R S&O Sim Til Web.

Sage, English Broad-Leaved. Crs Ptt Wdr.

Sage, Holt's Mammoth. Bur D&H Drw Iow MWJ Kra Lam Liv Man Mhl Ren Stk S&H Vau.

Sage, Large-Leaved. Koe.

Sage, Mammoth. Fld.

Sage, Purple. Thr.

Sage, Red. Thr.

Sage, Variegated Mammoth. Iow.

Salad Burnet. See *Pimpernel.*

Savory. Ar Btl Fld PM May OV.

Savory, Perennial. SB.

Savory, Summer. Alx Alr Anb Brd Brt Bkt Blg Bow Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr C&J CE Chl Cle C&B Col CF Cox Crs Cur Dlw D&H Del DD Drr Drm Dun Eas Ebe Eic Elt Emr RE Ewg Fmr Fqr Fst Fax Fer Frd Ger Gls GH Gra Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Haw Hen H&C Hlm Hop Hse H&P Iml Iow Jer MWJ RHJ J&M J&S Jns Kei K&W Ken Kg Koe Kos Kra Lam Lan Lnr LB Liv JL Loh Mnd Mgd Man Mau JCM JMM McK Mhl Mls Min MV M&S Mzy Neb Nol NK Old Pac Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr Raw Ree Ren Rce Rs RP S&R SC S&F S&O Shm Sie Sim Sox Spf Stk SB Stw S&H S&W Tat Tem Tex TB Thm Thr Thb AGT Til Tpk T&B Vau Vk Vin Wea Web W&D Wer Wll Wdr Yng Y&H.

SYNONYMS. *Bohnen Kraut.*

Savory, Winter. Bkt Brk Bdg Bru Buc Bur Cle C&B D&H DD Drr Drm RE Ewg Fst Ger Gra Grw Ham Hen H&C Hlm Hop MWJ RHJ J&S Kei Kra LB Liv Mnd Mau Min M&S Nol Pac HP Pug Sim SB S&W Thr Vau Vk.

Spearmint. Dlw Iow. Also called *Mint.*

Spearmint, Variegated. Iow.

Sweet Flag. See *Calamus.*

Sweet-Scented Marigold. See *Tagetes lucida.*

Tagetes Lucida. Bur. Also known as *Sweet-Scented Marigold.*

Tansy. Ber Bru Buc Bur Chl Crs Cur D&H Del DD Drr Elt Fmr Fst Fer Frd Ger GH Gra Hde Hen Hlm H&P Iow MWJ J&M J&S Ken Lam LB Mnd Mau May M&S Mzy Nol OV Pks Pir Poo Pot Pri Raw Ree Ren Sal Shm Sim Stk SB Tat Thm Thr Vk W&D Wer.

Tarragon. Bur Dlw Ebe Elt Fmr Fqr Fst Gry Hrn Iow MWJ Kra Liv Mnd Mau M&S Mzy Nol Pnt Pot Pri Raw Ree Sal S&F Sim Spf Stk S&W Thr T&B Vau Vk Wea W&D Wer.

SYNONYMS. *Estragon.*

Tarragon, Russian. Mnd.

Thyme. Alx Ar Bak Brd Brt Bkt Bow Bgs Bri Bru Bng Buc Bui Bur Brr C&J Cam CE Chl Cle Crg Dlw D&H Del Drm Eas Ebe Eic Emr RE Fmr Fqr Fst Fax Fer Frd GH Gry Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hst H&C Hlm Hop Iml MWJ RHJ J&M J&S Jns K&W Ken Kg Kos Kra Lan Lnr Liv JL Loh Mgd

Man PM Mns Mau May JCM JMM McK McM Mhl Mls Min MV M&S Neb NK OV Old Pac Pg Pks JMP Pir Prn Pne Poo Por Pri Raw Ree Ren Rce Rs RP Sal S&F S&B S&O Shm Sie Sim Spf Stk Stw S&H Tat Tem Thm Thb AGT Til T&B Vau Vin Web Wer Wll Y&H.

Thyme, Broad-Leaved. Anb Bel Brk CF Crs Cur DD Elt Ger Hen Hse H&P Iow Kei LB Man Sox SB S&W Wea W&D Yng.

Thyme, Broad-Leaved English. Alr Blg C&B Cox Gls Ggy G&T Lam Mnd Mzy Nol Pat Thr Vk Wea Wdr.

Thyme, English. Bdg Brn Drr Tpk.

Thyme, French. Bdg Drr Ggy Mnd Nol Thr Wea.

Thyme, French Summer. Cox Wea.

Thyme, Golden Variegated. Iow.

Thyme, Lemon. Kei.

Thyme, Summer. Ewg Gra Koe Pot Tex Vk.

Thyme, Sweet. Col HP Pnt SC.

Thyme, Winter. Bkt Ewg Gra Sim Vk.

Waldmeister. See *Asperula odorata.*

Woodruff. Ken Mnd Pnt S&F Wer.

SYNONYMS. *Asperula odorata, Waldmeister, Sweet Woodruff, Woodroof.*

Wormwood. Alr Anb Brd Btl Bkt Brk Bdg Bgs Brn Bru Buc Bur Brr Chl Cle C&B Col Crs Cur Dlw D&H Del DD Drr Drm Eas Ebe Elt RE Fmr Fqr Fst Fax Fer Frd Ger GH Gra Ggy Gry Grw Hns Ham Hrm Hrn Hen H&C Hlm Hop H&P Iow MWJ J&M J&S Kei K&W Ken Kos Kra Lam LB Liv JL Mnd Mau May Mel Mhl M&S Mzy Neb OV Old Pg Pks HP Pir Pnt Ptt Poo Por Pri Raw Ree Ren Rce Sal S&R S&F S&O Shm Sim Spf Stk SB S&W Tat Thm Thr AGT Vau Vk Vin Wea W&D Wer Wll Wdr Y&H.

HORSE-RADISH.

Horse-Radish. Ar Brd Bur D&H Drm Eic Elt Fqr Fst Ger Gry G&T Grw Ham Hde Hly Iow MWJ J&S Kei K&F Lam Lan Lnr LB Liv Mnd Mgd Mau JMM McK McM Mls Mzy Neb Pg HP Pir Pnt Pot Pug Raw Roc Sal SC S&F Shw Shm Sim Spf S&H Tex Thr AGT T&B Vau Vin W&D Wer.

KALE.

(Known also as Sprouts and Greens. Sea Kale is a form of beet, with thickened leaf stems.)

Abergeldie. Kei.

American. Mns.

SIMILAR NAMES. Extra Curled American.

SEEDSMEN'S SYNONYMS. *Long Standing*, Mns.

Bloomdale. MWJ Lan Stw.

Brown Curled. Bdg Ptt Rce S&F.

SIMILAR NAMES. Dwarf Brown, Dwarf Brown Curled, Tall Brown Curled, Tall Brown Scotch, Brown Dutch. See also *Brown German.*

SEEDSMEN'S SYNONYMS. *Curled Purple*, Bdg Ptt. *Purple*, Ebe.

Brown Dutch. Ebr.

Brown German. Man Nef Wea. For similar names see *German.*

Carter's Thousand Head. Ggy.

SIMILAR NAMES. Salzer's Thousand Head.

Cow Cabbage. Thr.

Seedsmen's synonyms. *Jersey Winter*, Thr.

Curled Dwarf German. Ken JMM RP Shw Sim TB Til Yng.

Similar names. See *German.*

Curled Dwarf Purple. Bai Crs Elt S&F. For similar names see *Dwarf Purple.*

Seedsmen's synonyms. *Dwarf Brown Curled*, Elt S&F.

Curled German. Blg PM Mns. For similar names see *German.*

Curled Green German. S&O. For similar names see *German.*

Curled Intermediate. Bui. For similar names see *Intermediate.*

Curled Mosbach. Bri Bui Bur Frd Mgd *Mns.* For similar names see *Mosbach.*

Curled Purple. Bdg H&P Ptt Raw. For similar names see *Dwarf Purple.*

Seedsmen's synonyms. *Brown*, Bdg Ptt.

Curled Purple German. Hen. For similar names see *Dwarf Purple, German.*

Seedsmen's synonyms. *Brown German Curled*, Hen Raw.

Curled Purple Scotch. Wdr.

Similar names. See *Dwarf Purple, Green Curled Scotch.*

Curled Siberian. Alx Bdg Bui C&J Ebe Elt *TG* J&S Thr.

Similar names. See *Siberian.*

Seedsmen's synonyms. *German Greens*, Ebe J&S. *Hardy German Greens*, Bdg. *Winter Sprouts*, Bdg.

Curled Striped. Thr.

Similar names. Striped Garnishing, Curled Variegated, Dobbie's Variegated.

Curled Variegated. Thr. For similar names see *Curled Striped.*

Dallwig's Dwarf Green Curled. Entered as *Dwarf Green Curled.*

Dobbie's Variegated. Gra. For similar names see *Curled Striped.*

Dobbie's Victoria. Ewg Gra.

Dreer's Imperial Long-Standing. Entered as *Imperial Long-Standing.*

Dwarf Brown. Brk S&W W&D. For similar names see *Brown Curled.*

Dwarf Brown Curled. Dlw Elt Thr. For similar names see *Brown Curled.*

Seedsmen's synonyms. *Dwarf German Purple*, Rce. *Dwarf Purple Curled*, Elt S&F.

Dwarf Curled. Alr Bel Fax Ger Pac Pot Pri.

Similar names. See *Dwarf Green Curled.*

Seedsmen's synonyms. *German Greens*, Alr Fax Ger Pac.

Dwarf Curled Berlin. Bui.

Dwarf Curled Erfurt. Bui *Pnt.*

Similar names. Dwarf Green Erfurt, Dwarf Green Curled Erfurt, Salzer's Dwarf Erfurt, Dwarf Erfurt.

Dwarf Curled Scotch. Bak Ber *Bgg* Bri Bur Drr Fer Gdn Ham Iml Jac Kg Lan *Lnr* LB Pg Raw Roe Shm Tem Tex Wyg Yng.

Similar names. See *Green Curled Scotch.*

Seedsmen's synonyms. *Dwarf German*, Bur Ham NK. *German Greens*, Ber Fer Ham Iml NK Pg, etc. *Siberian*, Bur. *Sprouts*, NK.

Dwarf Curled Slow Seeder. Lan. For similar names see *Dwarf Green Curled.*

Dwarf Erfurt. Sal. For similar names see *Dwarf Curled Erfurt.*

Dwarf German. Alx Anb Ar Brd Brt Btl Bkt Bri Bru Bui Bur Brr Cam Chl Cle Cox Crg CA DD Ebr Eic Fst Fax Fld Gdn GH G&T Grw TG Hns Ham Hbt H&C Hlm Hop H&P Iml Iow J&M Ken Kos Lea JL May McM Mls Min *Nol* NI NK Old JMP Prn *Pnt* Sal SC Spf Stk Tpk Vin *Wat* Wdr Yng.

Similar names. See *German.*

Seedsmen's synonyms. *Dwarf Curled Scotch*, Bur Ham NK. *German Greens*, Ham NK. *Greens*, Brd CA. *Siberian*, Bur JL GH Bkt Bri Cle Prn. *Sprouts*, Brd NK Prn. *Improved Siberian*, Ebr. *Improved Early Dwarf Siberian*, Wdr.

Dwarf German Brown Curled. GH Mzy HP. For similar names see *German.*

Dwarf German Green. Eie Iow *Trm Vl* Vin.

Dwarf Green. Pir. For similar names see *Dwarf Green Curled.*

Dwarf Green Curled. Bow Bng C&J Dlw Emr RE Fqr Ggy Gry Hde Hrm Hrn Hrs Jns Kra Lnr Mhl Neb Ree S&F Sie S&H Wlt Y&H.

Similar names. Tall Green Curled, Tall Green, Tall Curled, Dallwig's Dwarf Green Curled, Improved Dwarf Green Curled, Half Dwarf Green Curled, Dwarf Green, Dwarf Curled, Dwarf Curled Slow Seeder, Green Curled, Tait's Favorite Green Curled, Early Green Curled, Favorite Green Curled.

Seedsmen's synonyms. *German Greens*, Bow Buc Emr. *Sprouts*, Buc.

Dwarf Green Curled Erfurt. Pnt SC. For similar names see *Dwarf Curled Erfurt.*

Dwarf Green Curled Scotch. Brt Bkt Bgg Brk Bgs Bui Brb Cam CE C&B *CF Cox* Crs Cur DD Ebr Elt Evr Ewg Frd Gls Hrn Hen Hly Hlm Hop Lam Liv Mns *May* McK Mzy Nef *Pac* Pks Ptt Poo Por Ren Ree S&R SC S&O Sim Spf S&W Tat Thr T&B Vk W&D Wd Wdr WS.

Similar names. See *Green Curled Scotch.*

Seedsmen's synonyms. *Norfolk*, Wd WS.

Dwarf Green Curled Siberian. *CE* Hop Ree Wd. For similar names see *Siberian.*

Dwarf Green Erfurt. Bdg. For similar names see *Dwarf Curled Erfurt.*

Dwarf Green Extra Curled Scotch. Alx.

Similar names. See *Green Curled Scotch.*

Dwarf Moss Curled. Ptt. For similar names see *Half Dwarf Moss Curled.*

Dwarf Purple. Anb Fmr NK Vk.

Similar names. Curled Purple, Tall Purple, Curled Dwarf Purple, Dwarf Purple German, Dwarf Purple Scotch, Tall Purple Scotch, Curled Purple Scotch, Curled Purple German, Purple Curled Dwarf German.

Dwarf Purple German. Btl Bow Bur *CE* Emr Fer GH Ken Lam Lan LB Liv Ree.

Similar names. See *Dwarf Purple, German.*

Seedsmen's synonyms. *Dwarf Brown Curled*, Ree.

Dwarf Purple Scotch. JMM.

Similar names. See *Dwarf Purple, Green Curled Scotch.*

Dwarf Scotch. Del MWJ. For similar names see *Green Curled Scotch.*

Dwarf Siberian. *EBC* Gls Wdr. For similar names see *Siberian.*

Seedsmen's synonyms. *Sprouts*, Gls.

Early Curled Blue. *Nol.*

Early Dwarf Siberian. Wdr.

Seedsmen's synonyms. *Dwarf German Sprouts*, Wdr.

Early Curled Siberian. Wd WS. For similar names see *Siberian.*

Early Green Curled. Hst. For similar names see *Dwarf Green Curled.*

Early Moss Curled. Bri. For similar names see *Half Dwarf Moss Curled.*

Early Short-Leaved White Vienna. C&B.

Extra Curled American. G&T. For similar names see *American.*

Extra Curled Dwarf German. Gfg Lan Loh MV Sox Til Yng.

Similar names. See *German.*

Extra Curled Mosbach. Iow. For similar names see *Mosbach.*

Extra Dwarf Green Curled Scotch. Blg GH J&S Nol.

Similar names. See *Green Curled Scotch.*

Seedsmen's synonyms. *Norfolk*, Blg.

Extra Early Dwarf German. Pug. For similar names see *German.*

Favorite Green Curled. Tat. For similar names see *Dwarf Green Curled.*

Frisby's Crested. Kei.

German. Alr Ber Bow Brk Bng C&B CF Emr Fqr Fer Ger GN Gry Ham Lnr LB Liv Mzy Nol Pac Pg Ptt Pot Raw Roe S&F.

Similar names. Dwarf German, Extra Early Dwarf German, Holmes' Improved Dwarf German, Philadelphia Dwarf German, Curled Dwarf German, Green Curled Dwarf German, Purple Curled Dwarf German, Extra Curled Dwarf German, Curled German, Curled Green German, Curled Purple German, Dwarf Purple German, Half Dwarf German Moss Curled, German Brown Curled, Dwarf German Brown Curled, Tall German Brown Curled, Brown German.

Seedsmen's synonyms. *Dwarf Curled*, Alr Fax Ger Pac. *Dwarf Curled Scotch*, Ber Fer Ham Iml LB Pg, etc. *Dwarf German*, Ham NK. *Dwarf Green Curled*, Bow Buc Emr. *Siberian*, Brk Buc Fer Ggy Por S&R, etc. *Siberian Curled*, Ebe J&S. *Sprouts*, Buc Fqr Fer Liv NK Ptt Raw, etc. *Winter*, Fqr Por Raw S&F.

German Brown Curled. CF Cle C&B Del Hen Hly Neb Raw.

Similar names. See *German*.

Seedsmen's synonyms. *Purple German Curled*, Hen Raw.

Green Curled. Ebe Hrv H&P Mau Mic Min NI S&O AGT Vl.

Similar names. See *Dwarf Green Curled*.

Seedsmen's synonyms. *Scotch*, H&P.

Green Curled Dwarf German. *Cam Cox* Drr Evr Fmr Gra Hrn *Lnr* HP Sim Tex *Tpk* Web.

Similar names. See *German*.

Seedsmen's synonyms. *Sprouts*, Sim. *Siberian*, Hrn.

Green Curled Scotch. Alr Bai Brd Bow Bdg Bru Brw *Cam* D&H Eas Fst Fax Ger Gdn Grw TG Hrm Hrv H&P J&S Kei K&W Mau Min Neb Pac Prn Pne Pri Rs Sal Sox TB Vl Vin Wat Wea Wll.

Similar names. Imperial Green Curled Scotch, Norfolk Green Curled Scotch, Philadelphia Green Curled Scotch, Dwarf Green Curled Scotch, Extra Dwarf Green Curled Scotch, Half Dwarf Green Curled Scotch, Dwarf Green Extra Curled Scotch, Tall Green Curled Scotch, Tall Green Scotch, Tall Curled Scotch, Tall Brown Scotch, Tall Scotch, Dwarf Scotch, Half Dwarf Scotch, Dwarf Curled Scotch, Yale Curled Scotch, Dwarf Purple Scotch, Tall Purple Scotch, Curled Purple Scotch.

Green Dwarf Curled Mosbach. RHJ. For similar names see *Mosbach*.

Half Dwarf Curled Mosbach. Dlw. For similar names see *Mosbach*.

Half Dwarf German Moss Curled. Roc.

Similar names. See *German*, *Half Dwarf Moss Curled*.

Half Dwarf Green Curled. Cur Wer. For similar names see *Dwarf Green Curled*.

Half Dwarf Green Curled Scotch. CF.

Similar names. See *Green Curled Scotch*.

Half Dwarf Mosbach. Rce. For similar names see *Mosbach*.

Half Dwarf Moss Curled. Col Del Fer Koe Lam Liv May Vl.

Similar names. Semi-Dwarf Moss Curled, Half Dwarf German Moss Curled, Dwarf Moss Curled, Tall Moss Curled, Tall Green Moss Curled, Early Moss Curled.

Seedsmen's synonyms. *Scotch*, Col.

Half Dwarf Scotch. Col. For similar names see *Green Curled Scotch*.

Holmes' Improved Dwarf German. Entered as *Dwarf German*.

Imperial. *Bri Fer* J&S Mhl.

Similar names. Johnson & Stokes' Imperial, Dreer's Imperial Long-Standing, Imperial Long-Standing, Imperial Green Curled Scotch.

Seedsmen's synonyms. *Long-Standing*, Mhl J&S.

Imperial Green Curled Scotch. Man M&S.

Similar names. See *Green Curled Scotch*, *Imperial*.

Imperial Long-Standing. Drr *Nol*.

Similar names. See *Imperial*, *Long-Standing*.

Improved Dwarf Green Curled, Improved Siberian, Improved Early Dwarf Siberian, Improved Standing. Entered as *Dwarf Green Curled*, *Siberian*, *Early Dwarf Siberian*, and *Standing*.

Intermediate. Haw.

Similar names. Curled Intermediate.

Jersey Winter. Thr. For similar names see *Winter.*

Seedsmen's synonyms. *Cow Cabbage,* Thr.

Johnson & Stokes' Imperial. Entered as *Imperial.*

Large-Leaved Jersey. Ggy.

Large-Seeded. Raw.

Seedsmen's synonyms. *Spring,* Raw.

Large-Seeded Spring. Fqr Gry S&F. For similar names see *Spring.*

Late Siberian. Tat. For similar names see *Siberian.*

Long-Standing. Bri Brw J&S Mns Mhl.

Similar names. Very Curly Long-Standing, Improved Standing, Dreer's Imperial Long-Standing, Standing, Imperial Long-Standing.

Seedsmen's synonyms. *American,* Mns. *Imperial,* Mhl. *Johnson & Stokes' Imperial,* J&S.

Mosbach. Bkt H&P Lan Lea.

Similar names. Curled Mosbach, Extra Curled Mosbach, Green Dwarf Curled Mosbach, Half Dwarf Curled Mosbach, Half Dwarf Mosbach.

Mosbach Winter. *Vl.* For similar names see *Mosbach.*

Norfolk. Blg G&T MWJ.

Seedsmen's synonyms. *Dwarf Green Curled Scotch,* Wd WS. *Extra Dwarf Green Curled Scotch,* Blg.

Norfolk Dwarf Green Curled Scotch. *Nol.*

Norfolk Green Curled Scotch. M&S Wd WS.

Similar names. See *Green Curled Scotch.*

Norwood Dwarf Curled. JMM.

Ostrich Plume. Mgd Man.

Pe-Tsai. Alx Fqr Tat Thr Vaũ Vin.

Seedmen's synonyms. *Chinese Cabbage,* Alx Fqr Tat Thr Vaũ Vin.

Philadelphia Dwarf German. Lan. For similar names see *German.*

Philadelphia Green Curled Scotch. GH.

Similar names. See *Green Curled Scotch.*

Phenix. Kei.

Plain. Tat.

Seedsmen's synonyms. *Spring Sprouts,* Tat.

Predeck's Winter. DD. For similar names see *Winter.*

Purple. *Vl.*

Purple Curled Dwarf German. Bgg.

Similar names. See *Dwarf Purple, German.*

Salzer's Dwarf Erfurt. Entered as *Dwarf Erfurt.*

Salzer's Thousand Head. Sal. For similar names see *Carter's Thousand Head.*

Semi-Dwarf Moss Curled. Crs. For similar names see *Half Dwarf Moss Curled.*

Siberian. Bak Brk Bng Buc Brw C&B *CF Cox* Cur DD Ebr Evr Fer GH Ggy Hen H&C Kg Lan Lnr Liv JL Mgd Man *Mns* May Min Mzy Nol Ptt Poo Por Pri S&R Shm S&W Vau Wea W&D Wer.

Similar names. Improved Siberian, Late Siberian, Dwarf Siberian, Curled Siberian, Dwarf Green Curled Siberian, Thorburn's Improved Curled Siberian, Early Curled Siberian.

Seedsmen's synonyms. *Dwarf Curled Scotch,* Bur. *Dwarf German,* Bur JL GH. *Dwarf German Greens,* Bkt Bri Cle Prn. *Dwarf Green Curled German,* Hrn. *German Greens,* C&B Fer Liv Mzy Nol Por, etc. *Sprouts,* C&B Buc Fer Liv Nol Prn, etc. *Winter,* Wer. *Winter Sprouts,* Cur Thr.

Smooth. Kg Wd WS.

Seedsmen's synonyms. *Spring,* Kg Wd WS.

Spring. Bdg Kg Raw Tat Wd WS.

Similar names. Large-Seeded Spring.

Seedsmen's synonyms. *Large-Seeded*, Raw. *Plain*, Tat. *Smooth*, Kg Wd WS.

Standing. Bri. For similar names see *Long-Standing.*

Striped Garnishing. Bdg. For similar names see *Curled Striped.*

Tait's Favorite Green Curled. Entered as *Favorite Green Curled.*

Tall Brown Curled. Thr. For similar names see *Brown Curled.*

Tall Brown Scotch. Wer. For similar names see *Green Curled Scotch.*

Tall Curled. *Bel* Sox. For similar names see *Dwarf Green Curled.*

Tall Curled Scotch. Bou *Bri* CA Hns H&C Iml RHJ Lan Lnr Min Por S&R Shm Stw Web Wyg *Y&H.*

Similar names. See *Green Curled Scotch.*

Tall German Brown Curled. GH. For similar names see *German.*

Tall Green. DD. For similar names see *Dwarf Green Curled.*

Tall Green Curled. Bgs RE Jns McK Ren Vau.

Similar names. See *Dwarf Green Curled.*

Seedsmen's synonyms. *Scotch*, S&O.

Tall Green Curled Scotch. Btl Bkt Ber Blg Brk Buc Bur Brr *CE* Cle Cox Ebr Elt Ewg Fer GH Gra Ggy Hrs *Hst* J&M Kos Lam LB Loh MV Mzy NK Pg HP Pnt Ptt Pug Rce Roc SC *Shr* Sie Sim *Sox* Spf *Tex* Thr Til Trm Vk W&D Y&H.

Similar names. See *Green Curled Scotch.*

Tall Green Moss Curled. Crs. For similar names see *Half Dwarf Moss Curled.*

Tall Green Scotch. Fmr Hde Hrn Mnd.

Similar names. See *Green Curled Scotch.*

Tall Moss Curled. Gra. For similar names see *Half Dwarf Moss Curled.*

Tall Purple. Mnd. For similar names see *Dwarf Purple.*

Tall Purple Scotch. Mhl.

Similar names. See *Green Curled Scotch, Dwarf Purple.*

Tall Scotch. Bng Col H&P MWJ Ken Man May JMM Pks *Pnt* S&O.

Similar names. See *Green Curled Scotch.*

Seedsmen's synonyms. *Green Curled*, H&P. *Half Dwarf Moss Curled*, Col. *Tall Green Curled*, S&O.

Thorburn's Improved Curled Siberian. Entered as *Curled Siberian.*

Thousand Head. *Iow.*

Very Curly Long-Standing. Blg. For similar names see *Long-Standing.*

Welsh Curled. M&S.

Winter. Fqr Raw S&F Thr Wer.

Similar names. Jersey Winter, Predeck's Winter.

Seedsmen's synonyms. *German Greens*, Fqr Por Raw S&F. *Siberian*, Cur Wer Thr S&W. *Sprouts*, Fqr Por Raw S&F. *Hardy German Greens*, Bdg. *Siberian Curled*, Bdg. *Thorburn Improved*, Thr.

Yale Curled Scotch. Bri. For similar names see *Green Curled Scotch.*

KOHL-RABI.

Bohemian. CE.

Curled of Naples. Koe

Dallwig's Star of the Market. Entered as *Star of the Market.*

Earliest Erfurt. Drr *Lnr* Vau.

Earliest White Erfurt. DD Drr M&S Pnt SC.

Early Green. RE Kei. For similar names see *Green.*

Early Green Vienna. Drr *S&W.*

Similar names. Short-Leaved Early Green Vienna, Long Green Vienna, Vienna, Early Vienna, Extra Early Vienna. See also *Early Purple Vienna, Early White Vienna.*

Seedsmen's synonyms. *Early White Vienna*, Drr.

Early Purple. Crs Fmr Hrn Kei K&W *Man* May Nef Pne.

Similar names. See *Purple.*

Early Purple Vienna. Brd Brt Btl Bkt Ber Bgg Brk Bdg Bri Bru Bng Buc Bui Bur C&J *Can* Cle C&B Col Cur Dlw DD Drr Drm Eic Elt Emr RE Evr Fqr Fst Fer Frd Ger Gls GH Grw TG Hns Hrv Hen Hbt Hlm Iow J&M J&S Ken Kos Kra Lam Lea Lnr LB Liv JL Mnd Mgd JCM JMM McK Mic Mhl Mls MV Mzy Neb Nol NK Pac Pks HP JMP Pnt Ptt Por Pot Pug Raw Roc Rs S&R SC S&F Sim *Sox* SB S&W Tex Thm Thr Til Trm T&B Vau Vk Wea Web Wer Wdr Yng Y&H.

Similar names. Improved Early Purple Vienna, Short-Leaved Early Purple Vienna, Large Purple Vienna, Salzer's Purple Vienna, Purple Vienna, Vienna, Early Vienna, Extra Early Vienna. See also *Early Green Vienna*, *Early White Vienna.*

Early Vienna. Cok Ebr Hop Sal.

Similar names. See *Early White Vienna*, *Early Green Vienna*, *Early Purple Vienna.*

Early White. Cox K&W. For similar names see *White.*

Early White Forcing. Y&H. For similar names see *White.*

Early White Vienna. Alr Anb Ar Bai Bak Brd Brt Btl Bkt Ber Bow Bgg Bra Brk Bdg Bgs Bri AJB Brn Bru Bng Buc Bui LB Bur Brr C&J *Can* CE Cle C&B Col Crg Crs Cur Dlw D&H Del DD Drr Drm Eic Elt Emr *RE* Evr Fmr Fqr Fst Fer Frd Ger Gls Gdn GH Ggy Grw TG Hns Ham Hde Hrn Hrs Hrv Hst Hen Hbt H&C *Hly* Hlm H&P Iml Iow Jac J&M J&S Ken Kg Koe Kos Kra Lam Lea LB Liv JL Loh Mnd Mgd Man PM Mns Mas May JCM JMM McK Mic Mhl Mls MV Mzy Neb Nef Nol NI NK Old Pac Pks HP Pir Prn Pnt Ptt Poo Por Pot Pug Raw Ree Ren Rce Roc Rs RP S&R S&F Shw S&O Sie Sim Sox Spf Stk SB S&H S&W Tat Tem Tex TB Thm Thr Til Tpk Trm T&B *Vl* Vau Vk Wea Web Wer Wll Wd Wdr Yng Y&H.

Similar names. Short-Leaved Early White Vienna, Improved Early White Vienna, White Vienna, Vienna, Early Vienna, Extra Early Vienna. See also *Early Green Vienna*, *Early Purple Vienna.*

Seedsmen's synonyms. *Early Green Vienna*, Drr.

Extra Early Vienna. Chl.

Similar names. See *Early White Vienna*, *Early Purple Vienna*, *Early Green Vienna.*

Extra Early White Forcing. WS. For similar names see *White.*

Green. *Bur* Del Hlm Lan.

Similar names. Large Green, Large Late Green, Large Early Green, Early Green.

Seedsmen's synonyms. *White*, Hlm.

Green Giant. Neb. For similar names see *White Giant.*

Green Goliath. Ren. For similar names see *Purple Goliath.*

Imperial. Mau. For similar names see *White Imperial.*

Improved Early Purple Vienna, Improved Early White Vienna, Improved Green Goliath, Improved Imperial. Entered as *Early Purple Vienna*, *Early White Vienna*, *Green Goliath*, and *Imperial.*

Large Early Green. Vk. For similar names see *Green.*

Seedsmen's synonyms. *Large Early White*, Vk.

Large Early Purple. Brn CE *Gls* AGT. For similar names see *Purple.*

Large Early White. *Gls* AGT Vk Vin. For similar names see *White.*

Seedsmen's synonyms. *Large Early Green*, Vk.

Large Green. *Bri* Bui Bur CE CF Cox Cur DD Elt Fer GH Hrs *Hly* Kos Lam Lm Loh Mnd Mgd May Pnt Rce Roc SC Thr Til Wer.

Similar names. See *Green.*

Seedsmen's synonyms. *Large White*, Bui Bur Lan Lnr Mnd Roc, etc.

Large Green Giant. Frd. For similar names see *White Giant.*

SEEDSMEN'S SYNONYMS. *Large White Giant*, Frd.

Large Late Green. Crs Dlw Vin. For similar names see *Green.*

Large Late Purple Goliath. D&H. For similar names see *Purple Goliath.*

Large Late White. Crs. For similar names see *White.*

Large Purple. CF RE Ggy *May* Thr. For similar names see *Purple.*

Large Purple Giant. Anb Btl Hns. For similar names see *White Giant.*

Large Purple Vienna. Alr. For similar names see *Early Purple Vienna.*

Large White. Fqr Lnr Mnd Mau SC Thr. For similar names see *White.*

SEEDSMEN'S SYNONYMS. *Large Green*, Bui Bur Lnr Pnt Ree SC, etc.

Large White Giant. Anb Btl Frd Hns. For similar names see *White Giant.*

SEEDSMEN'S SYNONYMS. *Large Green Giant*, Frd.

Late Goliath. Fst. For similar names see *Purple Goliath.*

Late White Short-Leaved. M&S. For similar names see *White.*

Long Green Vienna. TB. For similar names see *Early Green Vienna.*

Mammoth. Sal.

SIMILAR NAMES. Salzer's Mammoth.

Purple. Ar Ebe Hnt Lan Stw.

SIMILAR NAMES. Early Purple, Smooth Early Purple, Large Early Purple, Large Purple, Smooth Purple, Smooth Purple Short-Leaved.

Purple Giant. *Btl* Ewg Gra. For similar names see *White Giant.*

Purple Goliath. Ggy Iow McK Ren Vau.

SIMILAR NAMES. Large Late Purple Goliath, Improved Green Goliath, White Goliath, Late Goliath, Green Goliath.

Purple Vienna. Bai *CE* Gry Hrm Loh Ren Ree RP Sal S&O Sie Sox.

SIMILAR NAMES. See *Early Purple Vienna.*

Queen. Bui.

Salzer's Mammoth, Salzer's Purple Vienna. Entered as *Mammoth* and *Purple Vienna.*

Short-Leaved Early Green Vienna. Bgs.

SIMILAR NAMES. See *Early Green Vienna.*

Short-Leaved Early Purple Vienna. Pri W&D.

SIMILAR NAMES. See *Early Purple Vienna.*

Short-Leaved Early White Vienna. Bui Cur Elt Hen Lnr Pri SC W&D.

SIMILAR NAMES. See *Early White Vienna.*

Smooth Early Purple. Bgs Hde NI. For similar names see *Purple.*

Smooth Purple. J&S Spf. For similar names see *Purple.*

Smooth Purple Short-Leaved. M&S. For similar names see *Purple.*

Smooth White Short-Leaved. J&S M&S Nol. For similar names see *White.*

Star of the Market. Dlw.

SIMILAR NAMES. Dallwig's Star of the Market.

Vienna. GN Hop.

SIMILAR NAMES. See *Early White Vienna, Early Purple Vienna, Early Green Vienna.*

White. Bel Bui Bur *CE* Ebe Ewg Hlm RHJ Lan Pnt Roc.

SIMILAR NAMES. White Short-Leaved, Smooth White Short-Leaved, Late White Short-Leaved, Early White, Early White Forcing, Extra Early White Forcing, Large White, Large Early White, Large Late White.

SEEDSMEN'S SYNONYMS. *Green*, Hlm.

White Giant. *Btl* Bkt Koe.

SIMILAR NAMES. Green Giant, Purple Giant, Large White Giant, Large Green Giant, Large Purple Giant.

White Goliath. Vau. For similar names see *Purple Goliath.*

White Imperial. Gra.

SIMILAR NAMES. Improved Imperial, Imperial.

White Short-Leaved. Brd. For similar names see *White*.

White Vienna. Alx *Bel* Cam CF CA Gry G&T Hrm *RHJ* Jns Ken Lan McM Stw WS.

SIMILAR NAMES. See *Early White Vienna*.

LEEK.

(Also called Flag.)

American. Bai Bow Bgg Bng Brw *Cam* C&B Evr *Frd* Ggy Gry Grw TG Haw Hop Lnr JCM Mrs Nol *Pac* Pir Ptt Por Pug Ree Roc Rs S&R S&O Shm T&B Vin Web Wer Wdr.

SIMILAR NAMES. Improved American, Broad American, Large American.

SEEDSMEN'S SYNONYMS. *Large Rouen*, Bow Por S&R Vin.

Brabanter. Dlw.

Broad. D&H DD Fax Gng Ggy H&P Mau Sim *Vl* Vk.

SEEDSMEN'S SYNONYMS. *London*, D&H. *London Flag*, H&P. *Broad London*, Fax. *Large Scotch*, Sim.

Broad American. Brr *CE* Cle CF Del Gls Hrn May Ree Sie Y&H.

SIMILAR NAMES. See *American*.

SEEDSMEN'S SYNONYMS. *Flag*, Brr.

Broad London. Brn Bng Bur Cle Col D&H *RE* Fst Fax GH Hde Hlm Kei K&W PM *McK* Nef NI Sal SB.

SIMILAR NAMES. See *London*.

SEEDSMEN'S SYNONYMS. *Broad Flag*, Fax. *Large American Flag*, Bur PM.

Broad Scotch. CF Drm Frd Ggy Hrv H&C Jns Liv Tem Vau Yng.

SIMILAR NAMES. See *Scotch Champion*.

SEEDSMEN'S SYNONYMS. *Flag*, Ggy. *London Flag*, Drm Frd Tem Vau Yng.

Buist's Mammoth. Bui. For similar names see *Mammoth*.

Carentan. Brk Bri Brr *Cam* C&B Del Hrv MWJ RHJ J&S Lan Liv M&S Mrs Wdr.

SIMILAR NAMES. French Carentan, Giant Carentan, Monstrous Carentan, Large Carentan, Extra Large Carentan.

SEEDSMEN'S SYNONYMS. *Champion*, Brr. *Large Musselburgh*, Drm Liv Wdr. *Large Scotch*, Brr. *Musselburgh*, Brk. *Scotch Champion*, Drm J&S Liv M&S.

Champion. Brr Man. For similar names see *Scotch Champion*.

SEEDSMEN'S SYNONYMS. *Carentan*, Brr. *Large Scotch*, Brr.

Dobbie's Champion. Ewg. For similar names see *Scotch Champion*.

English. McK.

Extra Large. Blg G&T. For similar names see *Large*.

Extra Large Carentan. Bru CF RE Ggy Raw. For similar names see *Carentan*.

French Carentan. *McK* Ren. For similar names see *Carentan*.

Giant Carentan. Bkt Dlw Drr *RE* Fqr Hrn *Lnr* Mhl S&F Spf SB.

SIMILAR NAMES. See *Carentan*.

Giant Musselburgh. Mhl Mrs Thm Wat *WS*. For similar names see *Musselburgh*.

Giant Palermo. Ewg.

Godden's Mammoth. Gdn. For similar names see *Mammoth*.

Improved American, Improved Italian Giant, Improved Large London. Entered as *American*, *Italian Giant*, and *Large London*.

Italian Giant. Bkt Bri Chl Fst J&S Mau M&S Nef Nol.

SIMILAR NAMES. Improved Italian Giant.

Large. *Bel* Brk CE Cox CA RE McM MV Pot Sox Thr Til WS.

SIMILAR NAMES. Extra Large.

SEEDSMEN'S SYNONYMS. *Large London Scotch*, Anb. *London*, Cox CE.

Large American. Alr Brd Bdg Bur Cox Cur DD Drr Elt Emr Fer GH Hrs Hen J&S Lam Lnr LB JL Mnd Mgd PM Mas JMM Mzy Neb NI JMP Prn Poo Raw Stw S&W Tat Thm Wea W&D.

Similar names. See *American.*

Seedsmen's synonyms. *Broad London*, Bur PM.

Large Carentan. Bdg Bng Cam *CE* Cle Crs DD Eic Elt GH Gfg TG Hst J&M Kg Mnd May MV Mzy Ree Sox Stk Stw S&W Tat Thr Wer.

Similar names. See *Carentan.*

Seedsmen's synonyms. *Musselburgh*, Thr.

Large London. Btl Bgs Bui *CE* Crg CA Del *DD* Eic Gdn Hns Hrm MWJ Kos Lan Mns HP Pnt Ree Roc RP SC Shw Stk Stw Wll.

Similar names. See *London.*

Seedsmen's synonyms. *Flag*, Btl CA. *Scotch*, Btl.

Large London Scotch. Anb Btl. For similar names see *Scotch Champion, London.*

Seedsmen's synonyms. *Large Flag*, Anb.

Large Musselburgh. C&J Crs DD Drm Ebr RE Ger Ggy TG RHJ Kra Lnr JL JMM NK Pac HP Pnt Ptt Roc S&O Sim Vau Wdr Yng.

Similar names. See *Musselburgh.*

Seedsmen's synonyms. *Carentan*, Drm Liv Wdr. *Scotch Champion*, Drm Liv HP Pnt.

Large Rouen. Bai Bow Brk Bui C&J *CE* C&B Cur Ebe Ebr *Eic* Elt Fqr Fer GH G&T TG Hde Hen Iow Ken Lnr LB Mnd May JCM Mrs Mzy Nol *Pac* Pir Ptt Por Pri Raw Ree Roc Sal S&R S&F S&O S&W Thm Thr T&B Vau Vin Y&H.

Similar names. See *Rouen.*

Seedsmen's synonyms. *American Flag*, Bow Por S&R Vin.

Large Scotch. Bru Brr Sim. For similar names see *Scotch Champion.*

Seedsmen's synonyms. *Broad-Leaved Flag*, Sim. *Carentan*, Brr. *Champion*, Brr. *Musselburgh*, Bru.

Large Winter. *Sox* Thr Vau.

London. Ar Bak Brt Bkt Ber Bri Brb Cox Crs Drr Drm Dun Ebe RE Fmr Fer Frd Ger Grw TG H&C Hnt H&P J&S Ken Lam *Lnr* LB Liv Loh May JMM Mic Mhl Min M&S NK Pac Pks S&H Tem Tex TB Thr Trm *17* Vau Vin Wat Wea Yng.

Similar names. Broad London, Improved Large London, Large London, Large London Scotch.

Seedsmen's synonyms. *Broad Flag*, H&P D&H. *Large Flag*, CE Cox. *Broad Scotch*, Drm Frd Tem Vau Yng.

Long. Fqr S&F.

Lyon. Gra Qkr.

Mammoth. Alx.

Similar names. Buist's Mammoth, Godden's Mammoth.

Monstrous Carentan. Brd Bow Bui Bur C&J D&H Ewg Fer Ger Gra Ham Hlm *Kei* Ken *Lam* LB Loh Mgd Mns Por Pri Roc S&R Sie Thm Vin Wea.

Similar names. See *Carentan.*

Seedsmen's synonyms. *Scotch Champion*, Bur Ham Hlm D&H Mns Sie.

Musselburgh. Brd Brt Bkt Brk Bgs Bui Cam *CE* Cle C&B Cox Cur Dlw Drr Ewg Fmr Fqr Frd GH Gra Gry G&T Hrs Hen Jns *Kei* Koe Kos Lan *Lnr* Liv May MV Neb *Pnt* Pri Pug Ree SC Sox SB Stw Thr Til Vk Wea W&D Wyg.

Similar names. Giant Musselburgh, Large Musselburgh, Scotch Musselburgh.

Seedsmen's synonyms. *Carentan*, Brk. *Large Carentan*, Thr. *Large Scotch*, Bru. *Scotch Champion*, Brd Cur Hen Ree. *Scotch*, Fqr.

Rouen. Bkt RHJ Lan Stk Vau.

Similar names. Large Rouen, Salzer's Large Rouen.

Salzer's Large Rouen. Entered as *Large Rouen.*

Scotch. Fqr. For similar names see *Scotch Champion.*

Seedsmen's synonyms. *Flag*, Btl. *Large London*, Btl. *Musselburgh*, Fqr.

Scotch Champion. Bur Cur D&H Fst Ham Hlm Hop J&S Liv Mns M&S HP Pnt Sie.

Similar names. Scotch, Broad Scotch, Large Scotch, Large London Scotch, Champion, Dobbie's Champion.

Seedsmen's synonyms. *Carentan*, Drm J&S M&S. *Large Musselburgh*, Drm Liv HP Pnt. *Monstrous Carentan*, Bur D&H Ham Hlm Mns Sie. *Musselburgh*, Brd Cur Hen Rce.

Scotch Musselburgh. Y&H. For similar names see *Scotch Champion, Musselburgh.*

Sir Ayton Castle Winter. M&S.

LETTUCE.

Advancer. Mhl.

Alaska. Bai.

All Cream. Agn Hly May OV Sal *Tpk.*

Similar names. See *California Cream Butter.*

All Heart. Drr *W&D.* For similar names see *California All Heart.*

All Seasons. Col Lnr Por S&R S&H Vau.

All Right Spring and Autumn. Mhl *Rim.* For similar names see *Meyers' All Right.*

All Year Round. Agn Brd Brt Brk Bdg Bri *CE* Cle CE Crs Cur Emr Fqr Ger Gra Ggy Gry TG Hrv Hst Hen RHJ Kei Kos Lnr Mnd Mau May JCM Mrs Neb Pac Pnt Pot Pri Rce *Roh* SC S&F Shw Shm SB Tat Tem Thm Til Wea W&D Wyg.

Seedsmen's synonyms. *Black-Seeded Butter*, Yng.

American Gathering. Agn Bdg Cox Crs GH TG Koe Lan May Mls MV Mzy Raw Ree Rce *Sox* Thr.

American Oak-Leaved. Tat. For similar names see *Oak-Leaved.*

Arlington White-Seeded. Raw. For similar names see *Black-Seeded Tennis Ball.*

Arlington White-Seeded Tennis Ball. Bui Brw J&S M&S.

Similar names. See *Black-Seeded Tennis Ball.*

Asparagus. Alr Bai Buc Ewg Gra Shm Sim.

Atlanta Market. McM.

Similar names. McMillan's Atlanta Market.

Australian White Triumph. M&S. For similar names see *Triumph.*

Balloon Cos. RE RHJ.

Baltimore Cabbage. G&T.

Baltimore Oak-Leaved. G&T J&S Mns Nol. For similar names see *Oak-Leaved.*

Barteldes' Denver Market. Entered as *Denver Market.*

Batavian Brown Head. Ebe. For similar names see *Brown Head.*

Bath Cos. Mrs Raw.

Beckert's Brown Curled. Bkt. For similar names see *Brown Head.*

Seedsmen's synonyms. *Chartier*, Bkt.

Beckert's Golden Curled. Bkt Bri. For similar names see *Golden Curled.*

Big Boston. Agn Alx Alr Brd Brt Btl Bkt Bel Blg Bru Bou *Bgg* Brk Bdg Bgs Bri Brn Bng Buc Bui Brb Bur Brr Brw C&J Cam CE Cle C&B CF Cox Crg Crs Cur CA Del DD Drr Dun Eic Elt Emr Evr Fqr Fst Fer Fle Frd Gls Gdn GH Gra Gry Gfg G&T TG Hns Hde Ham Hrm Hrn Hrs Hrv Hst Hen H&C Hlm Hop H&P Jac MWJ J&M J&S Jns *K&W* Kg *Lam* Lan Lea Lnr *LB* Liv Mgd Man PM *Mns* Mas Mau May JCM JMM McK McM Mhl M&S Mrs Mzy Neb Nol NK OV Pac *Pg* HP Prn Pnt Ptt Poo Pot Pri Raw Ren Rce *Rim* Roc *Roh* *Rt* Rs SC S&F Shw Shm Sie Sim SB S&W Tat Tem Tex Thm Thr Til *Tpk* Trm Vl Vau Vk Wat Wea Web W&D Wll *Wlt* Wd Wdr WS Y&H.

Similar names. See *Boston Market.*

Big Boston Forcing. May. For similar names see *Boston Market.*

Big Head. Blg G&T.

Seedsmen's Synonyms. *Large White Russian*, Mns.

Black-Seeded Butter. Agn Bur Cle C&B CF Cur *DD Gls* Hen Jns Liv Mrs Mzy *Pnt Roh* S&W Tem Til Yng.

Similar names. Mammoth Black-Seeded Butter, Thorburn's Mammoth Black-Seeded Butter, New York Black-Seeded Butter.

Seedmen's synonyms. *All the Year Round*, Yng.

Black-Seeded Simpson. Agn Alx Anb Ar Bak Brd Brt Btl Bkt Ber Bow Brk Bdg Bgs Bri Brn Bru Buc Bui Brb Bur Brw C&J Cam *CE* Cle C&B Col Cox Crs Cur CA Dlw *D&H* DD Drr Drm Dun Elt RE Evr Fmr Fqr Fst Fer Fld Frd Ger GH Ggy Gry Grw Hns Hde Hrn Hrs Hrv Hst Haw Hen Hbt H&C Hly Hlm H&P Iml Iow MWJ J&S Jns Kei Ken K&F Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Mnd Mgd Man *Mns* Mas Mau May JCM JMM McK McM Mhl Mls MV M&S Mrs Mzy Neb Nef Nol NI NK OV Old Pac Pg Pks HP Pir Prn Pnt Ptt Poo Por Pot Pri Pug *Rtk* Raw Ren Rce Roc *Roh* Rs RP S&R SC S&F S&B S&O Shm Sie Sox Spf SB Stw S&H S&W *Tex* TB Thm Thr AGT Til *Tpk* Trm Vl Vau Vk *Wea* Web W&D Wer Wdr WS Wyg Y&H.

Similar names. Improved Black-Seeded Simpson, Improved Early Black-Seeded Simpson, Curled Black-Seeded Simpson, Early Curled Black-Seeded Simpson, White-Seeded Simpson, Improved White-Seeded Simpson, Curled White-Seeded Simpson, Early White-Seeded Simpson, Early Curled Simpson, Early Curled, Extra Early Curled Simpson, Salzer's Early Simpson, Large Black-Seeded Simpson.

Seedsmen's synonyms. *Perpetual*, Frd. *White Paper*, WS.

Black-Seeded Summer. Blg G&T.

Black-Seeded Tennis Ball. Ar Agn Bai Brd Brt Bgg Brk Bgs Brn Bng Brb Bur Brr C&J *CE* Cle C&B CF CA Drr Drm Dun Ebe Elt Emr Fqr Fax Frd Ger Gls GH Ggy Gry G&T Grw TG Hrm *Hrn* Hst Hen Hlm Kg Lan Lnr LB Liv Mnd Mgd *Mns* Mau May JCM JMM McM MV Mrs Mzy NK OV JMP Prn Pot Raw Rce Roc *Roh* Rs RP S&R S&F S&O Sie Sox Tex Til *Tpk* Vau Wat Wea Wd Wdr Y&H.

Similar mames. Early Black-Seeded Tennis Ball, Stone Black-Seeded Tennis Ball, Early Green Black-Seeded Tennis Ball, Improved Large Black-Seeded Tennis Ball, White-Seeded Tennis Ball, Arlington White-Seeded Tennis Ball, Arlington White-Seeded, Forcing White-Seeded Tennis Ball, Boston Forcing White-Seeded Tennis Ball, Early White-Seeded Tennis Ball, Tennis Ball, Early Tennis Ball.

Blonde Beauty. Bru Fmr Fle Frd Jns Liv Vau.

Similar names. Golden Beauty, Blonde Blockhead.

Seedsmen's synonyms. *Blonde Blockhead*, Frd Fmr. *Sunset*, Frd Fmr Liv Yng.

Blonde Blockhead. Bng Bur Brr Cox Fmr Fqr Frd GH Ggy Hbt *MWJ* Mnd Mrs Neb NK Rce S&W Tat Tex Til *Wat* W&D.

Similar names. See *Blonde Beauty.*

Seedsmen's synonyms. *Blonde Beauty*, Frd Fmr. *Sunset*, Frd Fmr Mnd S&W W&D.

Blonde de Berlin. Mrs.

Blood Red. Fqr.

Bloomsdale Butter. Lan Rim. For similar names see *Bloomsdale Reliable.*

Bloomsdale Early Summer. Dlw Koe Rim.

Similar names. See *Bloomsdale Reliable.*

Bloomsdale Reliable. Gfg MWJ Lan.

Similar names. Bloomsdale Early Summer, Bloomsdale Butter, Bloomsdale White Cos.

Bloomsdale White Cos. *Lan.*

Similar names. See *Bloomsdale Reliable, White Cos.*

Bolgiano's Early Spring, Bolgiano's White Forcing, Bolgiano's Big Head, Bolgiano's White Loaf, Bolgiano's Black-Seeded Summer. Entered as *Early Spring, White Forcing, Big Head, White Loaf,* and *Black-Seeded Summer.*

Bonanza. Shw.

Bon Ton. JL.

Similar names. Livingston's Bon Ton.

Boston Curled. Brk Brb Bur *CE* Cle C&B CF Cox Cur DD Dun Eas Ebe Emr Ewg Fqr Fst Fax GH Gra Ggy Gry TG Hrm Hen Hbt H&P K&W Koe Kos Kra Lnr Mau May Mrs Neb NI JMP Pir Pne Pot Pri Raw Ree Ree RP S&O Sox S&W Trm *Vl* Y&H.

Similar names. See *Boston Market.*

Boston Early Curled. Pug. For similar names see *Boston Market.*

Boston Extra Fine Curled. Shm. For similar names see *Boston Market.*

Boston Fine Curled. Emr Fqr Rs SC S&F. For similar names see *Boston Market.*

Boston Forcing. *Vk.* For similar names see *Boston Market.*

Boston Forcing White-Seeded Tennis Ball. Fqr.

Similar names. See *Black-Seeded Tennis Ball.*

Boston Glass House. Nol. For similar names see *Glass House, Boston Market.*

Boston Head. Ebr. For similar names see *Boston Market.*

Seedsmen's synonyms. *Hothouse,* Ebr.

Boston Hothouse. *Brr.* For similar names see *Boston Market, Hothouse.*

Boston Market. Agn Bai Brd Brt Bkt Blg *Bgg* Brk Bdg Bru Bng Brb Brr C&J *CE* Cle C&B CF Cox Crs Cur Drr Ebe Elt Ewg Fst Ger *Gls* GH Gra Ggy Gry G&T Grw TG Hde Hrm Hrn Hrs Hen Hlm Jac J&S Ken Kg Lea *LB* Liv Mnd Man PM Mns Mas JCM JMM McM Mhl M&S Mrs Mzy Nef Nol NK *Pac* HP Prn Pne Pot Pri Ree Rt Rs Sal SC S&O Sie Spf S&W Tat TB Til Tpk T&B Vl Vk Wat Wea W&D Wd Wdr WS Yng Y&H.

Similar names. Breck's Boston Market, Holmes' Improved Boston Market, Large Boston Market, Large Boston, Early Boston Market, Big Boston, Improved Big Boston, Big Boston Forcing, Boston Head, Boston Curled, Boston Early Curled, Boston Fine Curled, Boston Extra Fine Curled, Boston Hothouse, Boston Forcing, Noll's Boston Glass House, Boston Glass House.

Seedsmen's synonyms. *Tennis Ball,* Blg Bur Hrm Lea PM Vk, etc. *White-Seeded Tennis Ball,* Brt Brd Bur J&S Ptt Rs, etc. *White Tennis Ball,* Ggy.

Brecks' Boston Market. Entered as *Boston Market.*

Briggs' Forcing and Garden. Bgs *Thr.*

Briggs' Prize Head. Entered as *Prize Head.*

Bronzed Curled. Lan. For similar names see *Bronzed Head.*

Bronzed Head. Brr.

Similar names. Hartford Bronzed Head, Bronzed Curled, Bronzed Red.

Bronzed Red. Eas. For similar names see *Bronzed Head.*

Bronzed Tomhannock. TB. For similar names see *Tomhannock.*

Brown Curled. CF Cox Mrs. For similar names see *Brown Head.*

Brown Dutch. *Bak Bgg* Brn Bru Bng Bui *CE* Cle CF Cur Ebe Eic Fmr Fqr Fer GH Hrm H&C H&P Iml MWJ Jns K&W Ken Kos Lam Lan Lnr LB JMM Min Mrs Nef Pks Pnt Ptt Por Ree S&R SC S&F S&O *Sie* Stk Thr Til *Vl* Vau W&D Wd Wdr.

Brown Genoa Cabbage. Ggy.

Brown Head. Dlw Raw.

Similar names. Batavian Brown Head, Shotwell's Brown Head, Early Brown Cabbage, Brown Curled, Beckert's Brown Curled.

Brown Speckled Dutch. Tat. For similar names see *Dutch Butter.*

Bruce's Nonpareil. Entered as *Nonpareil.*

Buckbee's Earliest Forcing. Buc. For similar names see *Earliest Forcing.*

Buckbee's Ice Drumhead, Buckbee's Superb. Entered as *Ice Drumhead* and *Superb.*

Buckeye. Til.

Buist's Perfection White Forcing. Entered as *Perfection White Forcing.*

Burnell's White Cos. D&H. For similar names see *White Cos.*

Burpee's Hard Head, Burpee's Prize Head, Burpee's Silver Ball, Burpee's Tomhannock, Burpee's White Heart Cos. Entered as *Hard Head, Prize Head, Silver Ball, Tomhannock,* and *White Heart Cos.*

Buttercup. Ber *Bgg* Bdg Brn CE Chl Crs Cur DD Ebr Evr Fmr Fqr Fst Fer Frd Ggy Hrn Hrv Hly J&M Lam Lnr LB Liv Loh Man Mns May JCM Mrs Mzy NK OV *Pnt* Ree S&O Shm S&W Thm *Tpk* Wea Wyg.

Similar names. Early Buttercup, Golden Buttercup, Golden Ball Buttercup.

Seedsmen's synonyms. *Golden Ball,* Hrn. *Rudolph's Favorite,* Fmr.

Butter Head. Hns.

Seedsmen's synonyms. *Early Cabbage,* Hns.

Butter Salad. HP.

Similar names. Early Butter Salad.

Seedsmen's synonyms. *Philipps' Early White Cabbage,* HP.

California All Heart. Alr Bel D&H H&P Kei Mzy Ree Vl.

Similar names. Dreer's All Heart, All Heart.

California Cream Butter. Agn Alx Alr Anb Bai Brd Btl Bkt Ber Blg Bri Bur Brr Brw *Cam CE* Col Cok Cox D&C Drr Drw *Eic* Evr Ewg Fmr Fer Fld Frd Ger GH Gra Gng Grw Hns Hst Hbt H&C Hlm Hop Iml Iow Jer J&M J&S Kg Koe *Lam* Lan Lnr Liv *Lon PM* JCM McK MV M&S Mrs Nol NK Pac Pg HP Pnt Poo Qkr Raw Ree Ren Rce *Roh* Shw S&O Shm Sie Sox SB Tat *Tex* Thm Thr Til Trm T&B Vl Vau Vk Vin *Wat* Web Wd WS.

Similar names. Shumway's California Cabbage, Cox's California Cream Butter, Cream Butter, All Cream, California Curled, California Giant White Forcing, California All Heart, California Passion.

Seedsmen's synonyms. *Royal,* Bur Brr. *Royal Summer Cabbage,* Alx J&S Pnt Grw Nol. *Summer Cabbage,* Pac.

California Curled. Sim W&D. For similar names see *California Cream Butter.*

Seedsmen's synonyms. *Green Fringed,* Sim Tem Yng.

California Giant White Forcing. M&S Nol.

Similar names. See *White Forcing.*

California Passion. Del. For similar names see *Passion.*

Celery Cos. Alr Bgs Bui Bur *Cam* Drr Eas Frd TG Hlm MWJ J&S Liv Man Mhl Raw Roc Shm SB Tem.

Similar names. Parisian Celery Cos.

Seedsmen's synonyms. *Cos,* Hen Mhl Fmr. *Dwarf White Heart,* Buc Roc. *Paris White Cos,* Bui Hlm. *Romaine,* Bui Fmr Ken Mhl. *Summer Endive,* Fmr. *Trianon,* Hen Kg Liv Tem. *Trianon Cos,* Alr Frd J&S Man Neb Ren TG. *Trianon Self-Closing Cos,* Ken.

Champion. Brw. For similar names see *Champion Spring and Summer.*

Champion Spring and Summer. J&S M&S Nol.

Similar names. Champion, Johnson & Stokes' Champion Spring and Summer, Moore's Champion Spring and Summer, Michell's All Right Spring and Autumn, All Right Spring and Autumn.

Chartier. Bkt Cle Ebe Lnr Sal Shm Wyg.

Seedsmen's synonyms. *Beckert's Brown Curled,* Bkt.

Chicago Forcing. Fmr.

Childs' Half Century. Entered as *Half Century.*

Cincinnati Market. JCM.

Cold Frame. *W&D.* For similar names see *Cold Frame White Cabbage.*

Cold Frame White Cabbage. Lan MV *Sox* Thr.

Similar names. New York Cold Frame, Cold Frame.

Constitution. *GN.*

Continuity. *Bur Iow.*

Cox's California Cream Butter, Cox's Improved Hanson, Cox's Improved Large Passion, Cox's Royal Summer, Cox's White Cos. Entered as *California Cream Butter, Hanson, Large Passion, Royal Summer,* and *White Cos.*

Cream Butter. Bui Chl CF *MWJ.* For similar names see *California Cream Butter.*

Seedsmen's synonyms. *Improved Royal Cabbage.* Bui.

Crisp as Ice. Bur *Cox* Liv JL Mau Mrs *Shw* Tem Vk *Wd.*

Crosman. Crs.

Crumpled Leaf. Brw Fqr Raw S&F.

Similar names. Rawson's Crumpled Leaf.

Crystal Palace. Bur.

Similar names. Giant Crystal Head, Holmes' Giant Crystal Head.

Curled Black-Seeded Simpson. Alr Bai Bng Jac Stw.

Similar names. See *Black-Seeded Simpson.*

Curled India. Lan Mel Shw. For similar names see *India.*

Seedsmen's synonyms. *Hanson,* Tat.

Curled Silesia. Brt Bri RE Ewg Gra Liv Vl.

Similar names. See *Early Curled Silesia.*

Curled White-Seeded Simpson. Bai Bgg Bng Chl GH Lan NI Shw Stw S&W Wll.

Similar names. See *Black-Seeded Simpson.*

Seedsmen's synonyms. *Perpetual,* Wll.

Currie's Prize Head. Entered as *Prize Head.*

Cut and Come Again. M&S.

Dallwig's Defiance Summer. Entered as *Defiance Summer.*

Dammann's Improved. *Ewg.*

Deacon. Agn Bai Bkt *Blg* Bow *Bgg* Bdg Bgs Bri Buc Bui Brb Bur Brr C&J CE Cle Col CF Cox Crs Cur Dlw Drr Emr Ewg Fmr Fqr Fst Fer Gls GH Gra Ggy Gry TG Hrm Hrs Hrv Haw Hen Hlm *MWJ* J&S Jns K&W Ken Kg Kos Lam Lan Lnr LB *Liv* Loh Mgd May JCM *Mel* Mhl MV Mrs Nol NK Pac Pg Prn Poo Pot Qkr Raw Ren Rce *Roh* Rs S&F *Shw* Sie *Sox* SB S&H Tat Tem Thr Til T&B Vau Vk Wat Wea W&D Wlt Wd Wdr WS Yng Y&H.

Similar names. Improved Deacon.

Seedsmen's synonyms. *Nonpareil,* JCM. *San Francisco Market,* Buc Bur Ren Sie Yng.

Defiance. Blg Bri *CE* Cle Col Cur Drr Emr Ewg Fqr Fax Ggy Gry G&T Hlm Lnr Mhl Mrs Raw Rce S&F Tat.

Similar names. Defiance Summer, Dallwig's Defiance Summer, Improved Defiance Summer, Mann's Defiance Summer, Perpignan Defiance Summer.

Seedsmen's synonyms. *Perpignan,* Bri.

Defiance Summer. Bel Dlw GH Hde J&S *Kra* Liv JL PM JMM Vau W&D.

Similar names. See *Defiance.*

Seedsmen's synonyms. *Perpignan,* J&S Liv Vau.

Delicate. Pg.

Denham's Mammoth Green. Hrv.

Density. *Hen.*

Denver Market. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bel Bow Brk Bri Bui Bur Brr C&J CE Chl Cle CF Cox Crs Cur CA D&H Del Drm Ebe RE Evr Ewg Fqr

Fst Fer Fle Frd Ger Gdn GH Gra Ggy Gry Gfg Grw TG Hns Ham Hrn Hrs Hst H&C Hly Hlm H&P Iow *RHJ* Jns Kg Lea Lnr Liv JL Mgd Man Mau May JCM JMM McK McM Mhl Mls MV Mrs Mzy Neb NK OV Pac HP JMP Pir Pnt Ptt Por Pot Pri Raw Ree Ren Rce Roc *Roh* Sal S&R S&F Shm Sie Sim Spf SB S&H S&W Tem TB Thn Thr Til *Tpk* Trm T&B Vl Vk Vin *Wat* W&D WS Yng.

SIMILAR NAMES. Denver Market Forcing, Barteldes' Denver Market.

SEEDSMEN'S SYNONYMS. *Savoy*, Chl Grw Ham Kg.

Denver Market Forcing. Brd Drr Kra *LB* Old Vau.

SIMILAR NAMES. See *Denver Market.*

Detroit Market Gardener's Forcing. Bur Fer Loh Mrs Wat.

SEEDSMEN'S SYNONYMS. *Engel's Forcing*, Loh.

Dickmann's Private Stock. DD.

SIMILAR NAMES. See *Market Gardener's Private Stock.*

Dickmann's St. Louis Market White-Seeded. Entered as *St. Louis Market.*

Dreer's All Heart, Dreer's Hanson, Dreer's Improved Hanson. Entered as *All Heart* and *Hanson.*

Drumhead. Bui CF Cur *Eic* Fqr Gdn Ggy Hst Kei Mnd May Mrs Pac Ren SC Sim Stk SB Wea W&D.

SIMILAR NAMES. Summer Drumhead, Large Drumhead, Ice Drumhead, Large Ice Drumhead, Buckbee's Ice Drumhead, Hastings' Drumhead White Cabbage, Simon's Summer Queen Drumhead, Summer Queen Drumhead.

SEEDSMEN'S SYNONYMS. *Malta*, Cur CF Kei Mnd Mrs Ren W&D. *Maltese White Summer*, Sim. *Royal White Summer*, SC.

Dutch Butter. Btl Crg Fst Hnt MWJ Wat Wd WS.

SIMILAR NAMES. Early Dutch Butter, Hornberger's Dutch Butter, Brown Speckled Dutch, Speckled Dutch Butter, Early Speckled Dutch Butter, Simon's Early Speckled Dutch Butter, Philadelphia Speckled Dutch Butter, Philadelphia Early Dutch Butter, Philadelphia White Dutch Butter.

SEEDSMEN'S SYNONYMS. *Early Cabbage*, Btl.

Dwarf White Heart Cos. Buc Bur Hbt Mau Roc.

SIMILAR NAMES. See *White Cos.*

SEEDSMEN'S SYNONYMS. *Celery*, Buc Roc.

Earliest Cutting. Dlw Fer. For similar names see *Earliest Forcing.*

Earliest Forcing. MWJ Roc.

SIMILAR NAMES. Buckbee's Earliest Forcing, Hammond's Earliest Forcing, Longstreth's Earliest, Mills' Earliest, Salzer's Earliest, Earliest Cutting.

Early Black-Seeded Simpson. *Bow* Ebr.

SIMILAR NAMES. See *Black-Seeded Simpson.*

Early Black-Seeded Tennis Ball. Ber Bow Brn Buc Dun Fer Lnr Lam LB JL Mhl Por S&R TG.

SIMILAR NAMES. See *Black-Seeded Tennis Ball.*

Early Boston Market. Bow Buc Bui Roc. For similar names see *Boston Market.*

SEEDSMEN'S SYNONYMS. Early *Tennis Ball*, Bdg. *White-Seeded Tennis Ball*, Buc. *White Tennis Ball*, Bui.

Early Brown Cabbage. HP. For similar names see *Brown Head.*

SEEDSMEN'S SYNONYMS. *Prize Head*, HP.

Early Buttercup. Bui. For similar names see *Buttercup.*

Early Butter Head. Ggy Hns. For similar names see *White Butter Head.*

Early Butter Salad. W&D. For similar names see *Butter Salad.*

Early Cabbage. Btl Bou Bui Crg Dlw Gdn Hns Jac Mhl *Rim* Stk Yng.

SIMILAR NAMES. See *White Cabbage.*

SEEDSMEN'S SYNONYMS. *Butter Head*, Hns. *Dutch Butter Head*, Dlw. *Speckled Dutch Butter Head*, Dlw. *White Butter*, Bui Mhl Stk Yng.

Early Challenge. May.

Similar names. May's Early Challenge.

Early Curled. Hnt. For similar names see *Black-Seeded Simpson.*

Early Curled Black-Seeded Simpson. Brr CE CF Del Ebe TG *May* Mic JMP Sim T&B.

Similar names. See *Black-Seeded Simpson.*

Early Curled Silesia. Agn Anb Ar Bai *Brd* Btl Bow *Bgg* Brn Bru Bui Bur *Cam CE* Cle CF Cox Crg CA DD Drm Ebe Emr Fmr GH Ggy Grw TG Hns Hrm Hrn Hrs Hrv Hlm H&P MWJ J&S Jns Kei K&W Ken *Lam* Lan Lea Lnr LB Loh Mnd JCM JMM *Mic* Min MV Mrs Nef NI Pac Pks HP JMP Ptt Pot Pri Qkr Ree Rim *Roh* Rs RP Sal S&O Shm Sox Spf Tat Thm Tpk Trm T&B Vau Vk Vin Web Wer Wdr Wyg Y&H.

Similar names. Price & Knickerbocker's Improved Early Curled Silesia, Green Early Curled Silesia, Green Curled Silesia, Curled Silesia, Simpson's Curled Silesia.

Early Curled Simpson. Agn Alr Anb Ar Bak Brd Btl Ber Blg Bou Bow Brk Brn Buc Bui Bur Brr C&J CE Chl Cle C&B Col CF Cox Crg Crs Cur D&H Del D&C Drr Drw Ebe Elt Emr Ewg Fmr Fqr Fer Ger Gls Gra Ggy Gry G&T Grw TG Hns Hde Hrn Hen H&C Hlm Hop Iml Iow RHJ J&M Jns Kg Lam Lea Lnr LB Liv JL Loh Mgd Man *PM May* JCM JMM Mic Mhl Mls Min MV Mrs Mzy Neb Nef NK OV *Pac* Pks HP JMP Pnt Ptt Poo Por Pot Pri Pug Raw Ren Ree Roe *Roh* Rs RP S&R SC S&F *Shw* S&O Sim Sox Spf SB S&H Tex TB Thr Thb Tpk Trm T&B Vau Vk Vin Wat Wea Web W&D Wd Wdr WS Wyg Yng Y&H.

Similar names. See *Black-Seeded Simpson.*

Seedsmen's synonyms. *Silesia,* Iml Vk. *White-Seeded Simpson,* JCM.

Early Dutch Butter. Bui Gdn Jac. For similar names see *Dutch Butter.*

Early Golden Stone Head. Ebr. For similar names see *Golden Stone Head.*

Early Golden Yellow Stone Head. Qkr. For similar names see *Golden Stone Head.*

Early Green Black-Seeded Tennis Ball. Hrs.

Similar names. See *Black-Seeded Tennis Ball.*

Early Green Summer. Bui. For similar names see *Summer.*

Seedsmen's synonyms. *Perpignan,* Bui.

Early Hanson. Alx Bgs Bui Gdn Hde Jac HP SB. For similar names see *Hanson.*

Early Market. May.

Similar names. Eichling's Early Market.

Early Ohio. RE. For similar names see *Extra Early Ohio.*

Early Paris Market Forcing. RE.

Early Prize Head. Alr Btl Bel Ber Bow Brk Buc Bui Bur CE C&B Col Cok Cox Crs Del Dun Emr Fer Fle Frd Ggy Gdn TG Haw Hen Hbt Hlm Hse H&P Iml J&M J&S Kg Lam Lea LB Loh PM Man JCM McK Mic Mls MV Pac Pg Pks JMP Por *Rtk* Ree Ren Rce Roc S&R S&O Sox SB S&H Thm Thb Tpk Trm T&B Vl *Vau* Vk W&D Wdr Wyg Y&H.

Similar names. See *Prize Head.*

Early Simpson. Sal. For similar names see *Black-Seeded Simpson.*

Early Speckled Dutch Butter. Drr M&S. For similar names see *Dutch Butter.*

Early Spring. Blg.

Similar names. Bolgiano's Early Spring.

Early Stone Head. Agn. For similar names see *Golden Stone Head.*

Early Tennis Ball. Anb Btl Fer *GN* Hns J&M K&W Mic Pac Sal Shm.

Similar names. See *Black-Seeded Tennis Ball.*

Seedsmen's synonyms. *Early Boston Market,* Bdg. *Stone Tennis Ball,* Fer.

Early White Butter Head. Bak CF Drw SC.

Similar names. See *White Butter Head.*

Seedsmen's synonyms. *Early White Cabbage,* Bak CF SC.

Early White Cabbage. Agn Bak CF Crs CA Drr Fst G&T Grw TG H&C K&F Liv HP Pnt Qkr SC Web.

Similar names. See *White Cabbage.*

Seedsmen's synonyms. *Early White Butter,* Bak CF SC. *Butter Salad,* HP.

Early White Head. Anb Hde Lam LB Liv JCM Pks.

Seedsmen's synonyms. *Philadelphia Butter,* Anb Hde Lam LB Liv JCM Pks. *Philadelphia Early Butter White Head,* Pg.

Early White-Seeded Simpson. Ebr Sal Tat.

Similar names. See *Black-Seeded Simpson.*

Early White-Seeded Tennis Ball. Anb Btl Bdg Brn Crs DD Dun Evr Gls TG Lnr Pg Pnt Pug Roc RP Sal Shm Vl Wll.

Similar names. See *Black-Seeded Tennis Ball.*

Early White Self-Folding Cos. DD Fmr Fer Fle Gls Lam LB Neb NK JMP.

Similar names. See *White Cos.*

Eichling's Early Market. Eic. For similar names see *Early Market.*

Elliott's Hothouse. Entered as *Hothouse.*

Emerald. GN.

Emperor Forcing. Drr Mhl Thr *Vau* Wat.

Similar names. Improved Emperor Forcing.

Emperor William. Thr S&W.

Engel's Forcing. Loh.

Seedsmen's synonyms. *Detroit Market Gardener's Forcing,* Loh.

Eureka. Crs.

Evans' Early Ohio, Evans' Hamilton Market. Entered as *Early Ohio* and *Hamilton Market.*

Everitt's Everlasting. Entered as *Everlasting.*

Everlasting. Evr.

Similar names. Everitt's Everlasting.

Excelsior. Ewg.

Similar names. Kendel's Excelsior Head.

Express Cos. *Hen Vau.* For similar names see *White Cos.*

Extra Early Curled Simpson. Shm. For similar names see *Black-Seeded Simpson.*

Extra Early Ohio. Bru.

Similar names. Evans' Early Ohio, Ohio Cabbage, Early Ohio.

Farquhar's Long-Standing. Fqr. For similar names see *Standwell.*

Faust's Queen. Fst. For similar names see *Golden Queen.*

Ferry's Early Prize Head, Ferry's Prize Head. Entered as *Early Prize Head* and *Prize Head.*

First Early. GN.

Florida Favorite. Lan. For similar names see *Rudolph's Favorite.*

Florida Header. Crs Hst. For similar names see *Rudolph's Favorite.*

Forcing Cabbage. MWJ. For similar names see *White Cabbage.*

Forcing White-Seeded Tennis Ball. Pot.

Similar names. See *Black-Seeded Tennis Ball.*

Forty Day. *Mau.*

Frankfort Head. Bak Bri CE Cle Ken Loh Til Tpk.

Similar names. Frankfort Head White-Seeded.

Frankfort Head White-Seeded. Bri. For similar names see *Frankfort Head.*

Seedsmen's synonyms. *Salamander,* Bak Loh Sox.

Frotscher's New Orleans Improved Large Passion. Entered as *New Orleans Large Passion.*

Gardener's Favorite. Bru Sim. For similar names see *Rudolph's Favorite.*

Genezzano. Koe.

German Butter Head. Sal. For similar names see *White Butter Head.*

German Early Head. Bdg.

German Incomparable. *Dlw.*

Giant Crystal Head. Hlm Mhl *Mrs* S&F *Shm Sie* Thr Wea.

Similar names. See *Crystal Palace.*

Giant Glacier. Bur *Man Pac.*

Giant White Cos. Bur Cle Crs Cur Mrs Nef NK.

Similar names. See *White Cos.*

Glass House. C&B Ebr Thr *W&D.*

Similar names. Thorburn's Glass House, Noll's Boston Glass House, Boston Glass House.

Godden's Black-Seeded Forcing. Gdn.

Godden's Early Butter Head. Gdn. For similar names see *White Butter Head.*

Seedsmen's synonyms. *Godden's Early Cabbage,* Gdn.

Godden's Early Cabbage. Gdn. For similar names see *White Cabbage.*

Seedsmen's synonyms. *Godden's Butter,* Gdn.

Golden Ball. Ber CE Ger GH Hrn Hop Mls Neb NK Sal Vl.

Similar names. Northrup, King & Co.'s Golden Ball, Golden Head, Golden Heart, Golden Ball Buttercup.

Seedsmen's synonyms. *Buttercup,* Hrn.

Golden Ball Buttercup. Spf. For similar names see *Golden Ball, Buttercup.*

Golden Beauty. Man Til. For similar names see *Blonde Beauty.*

Golden Butter. Wdr.

Seedsmen's synonyms. *Yellow-Seeded Butter.* Wdr.

Golden Buttercup. Pnt SC. For similar names see *Buttercup.*

Golden Curled. MWJ Lan Mel Mrs.

Similar names. Beckert's Golden Curled.

Golden Gate. Bkt *Brw* D&H J&S M&S *Mrs* S&F *Vl.*

Golden Head. Tem. For similar names see *Golden Ball.*

Golden Heart. Chl Frd. For similar names see *Golden Ball.*

Seedsmen's synonyms. *Stone Head Golden Yellow,* Frd.

Golden Heart Stone Head. Hns. For similar names see *Golden Stone Head.*

Golden Queen. Agn *Blg* Bdg Bur C&B Cur Elt Frd Hen J&S *Loh* PM Mhl Mrs Ree *Roh* Shw Sim Thr Vk W&D WS.

Similar names. Golden Queen Forcing, Faust's Queen, Yellow Queen.

Seedsmen's synonyms. *Early Egg,* PM. *Gold Nugget,* Frd.

Golden Queen Forcing. Drr GH. For similar names see *Golden Queen.*

Golden Spotted. Dlw.

Golden Stone Head. Ar Btl Bdg *CE* Cle Ebe Elt Ewg GH TG Mnd Man Mzy Pac Ree Sal S&W Thr Trm Vau W&D.

Similar names. Golden Heart Stone Head, Golden Yellow Stone Head, Early Golden Yellow Stone Head, Early Golden Stone Head, Early Stone Head.

Seedsmen's synonyms. *Yellow-Seeded Butter,* Bdg.

Golden Sunset. Ewg. For similar names see *Sunset.*

Golden Yellow Stone Head. *Btl* Bur Dlw Frd Ggy TG Hlm Liv Mns Mrs Nef.

Similar names. See *Golden Stone Head.*

Seedsmen's synonyms. *Golden Heart,* Frd.

Gold Nugget. Buc Bur Frd Hlm Mrs Roc S&W.

Seedsmen's synonyms. *Golden Queen,* Frd.

Grand Rapids. Agn Alr Bai Bak Brd Btl Bkt Bel Ber Bow *Bgg* Bri Bru Bng Bui Bur Brw CE Cle Col Crs Cur D&H Drm Eas Ebe Evr Ewg Fst Fer Gls GH Gra Gng Ggy G&T Grw TG Hns Ham Hde Hrs Hrv *Hst* Hbt H&C Hly Hlm H&P Iow MWJ RHJ J&M J&S Kei Ken K&F Koe Kos Lam Lan LB Liv JL Loh Mau May JMM McK Mic Mrs NK OV Pg Pks JMP Pir Pnt Ptt Poo Pri Raw Ren Ree Roc *Roh* Rt S&R SC S&O Sie Sim Stw S&H Tem Thm Thb AGT Tlh Til *Tpk* Vl Web Wer Wdr WS Yng Y&H.

Similar names. Grand Rapids Forcing, Grand Rapids Early Forcing.

Grand Rapids Early Forcing. RP. For similar names see *Grand Rapids.*

Grand Rapids Forcing. Ar *Brd* Brk Bdg Brn Buc Bui CF Cox Dlw D&H *DD* Drr RE Fmr Fqr Frd Hrn Hse Iml Jns Kra Lnr Mgd May JCM Mhl MV M&S Mzy Neb Nol Old *Pac* HP Por Pug Ree Sal S&F Shm *Sox* Spf SB S&W *Tex* TB Thr Trm T&B Vau Vk Wea W&D Wyg *Y&H.*

Similar names. See *Grand Rapids.*

Gray-Seeded Butter. Cle Mzy.

Similar names. Large Gray-Seeded Butter.

Green Cos. Lan *McK* Ren.

Green Curled Silesia. Sim. For similar names see *Early Curled Silesia.*

Green Early Curled Silesia. SB. For similar names see *Early Curled Silesia.*

Green-Fringed. Alr Bur *CE* Cur Del Ebe Fst GH Ggy Grw *Hde* Mau Mrs Neb NI NK Raw Ree Rce RP Shm Sim Tem Vau Web W&D Yng.

Seedsmen's synonyms. *California Curled,* Sim Tem Yng. *Red-Fringed,* Ebe.

Green Winter. Sal. For similar names see *Hardy Green Winter.*

Griffith & Turner Co.'s Black-Seeded Summer, Griffith & Turner Co.'s White-Seeded Summer. Entered as *Black-Seeded Summer* and *White-Seeded Summer.*

Half Century. Bgs Chl.

Similar names. Childs' Half Century.

Hamburger's Butter Head. Thm. For similar names see *White Butter Head.*

Hamilton Market. Brn Bru RE.

Similar names. Evans' Hamilton Market.

Hammersmith. Vk. For similar names see *Hardy Green Hammersmith.*

Seedsmen's synonyms. *Hardy Green Winter,* Bdg Vk.

Hammersmith's Summer Drumhead. M&S.

Similar names. See *Hardy Green Hammersmith, Hammersmith.*

Hammond's Earliest Forcing. Ham. For similar names see *Earliest Forcing.*

Hammond's Wonderful. Entered as *Wonderful.*

Hanson. Agn Alr Anb Ar Bai Bak Brd Bdg Btl Bkt Bel Ber Blg *Bow Bgg* Brk Brt Bri Brn Bru Bng Buc Brb Bur Brr Brw C&J CE Chl Cle Col CF Cox Crg Crs Cur CA D&H Del *DD* Drr Drw Drm Ebe Ebr Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Fld Fle Frd Ger Gls GH Gra Gng GN Ggy Gry Gfg G&T Grw TG Hns Ham Hrm Hrv Hst Haw Hen Hbt H&C Hly Hlm Hop Hnt H&P Iml Iow Jer MWJ *RHJ* J&S Jns Kei K&W Ken Kg Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Mnd Mgd Man PM Mas Mau *May* JCM JMM McK McM Mel Mic Mhl MV Mrs Neb Nef NI NK OV Old Pac Pg Pks JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr *Rtk* Raw Ree Ren Rce Roc *Roh* Rs RP Sal S&R SC S&F S&B Shw S&O Shm Sie Sim Sox Spf S&H Tat Tem Tex Thm Thr *Thb* AGT Tlh Til Tpk Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wer Wll Wlt Wd Wdr WS Wyg Yng Y&H.

Similar names. Dreer's Hanson, Dreer's Improved Hanson, Cox's Improved Hanson, Maule's Improved Hanson, Improved Hanson, Improved Large Hanson, Large Hanson, Improved Early Hanson, Early Hanson.

Seedsmen's synonyms. *Curled India,* Tat.

Hanson Hard Head. Mhl.

Hard Head. Bur Col D&C Frd Hlm Mls Mrs Ree Wll.

Similar names. Burpee's Hard Head, Schwill's Hard Head.

Hardy Green. Bdg. For similar names see *Hardy Green Winter.*

Hardy Green Hammersmith. *Thr* W&D.

Similar names. See *Hammersmith, Hammersmith Summer Drumhe*

Hardy Green Winter. Bkt Crs Cur DD Mrs HP Pnt SC Shw.

Similar names. Hardy Green, Hardy Winter, Green Winter, Large White Winter, Hardy Red Winter, Hardy Green Hammersmith, Hardy White Winter.

Seedsmen's synonyms. *Hammersmith,* Bdg Vk.

Hardy Red Winter. RHJ. For similar names see *Hardy Green Winter.*

Hardy White Winter. *RHJ.* For similar names see *Hardy Green Winter.*

Hardy Winter. Mns. For similar names see *Hardy Green Winter.*

Harris' White Cos. Entered as *White Cos.*

Hartford Bronzed Head. C&J. For similar names see *Bronzed Head.*

Hastings' Drumhead White Cabbage. Hst. For similar names see *Drumhead.*

Heat-Resisting Cos. Fst MWJ Lan Stw.

Similar names. Landreth's Heat-Resisting Cos, Price's Heat-Resisting.

Heavy Weight. Sal.

Henderson's Immensity, Henderson's Improved New York, Henderson's New York, Henderson's New York Market, Henderson's Perfected Salamander, Henderson's Trianon Cos, Henderson's Express Cos, Henderson's Precocity, Henderson's Density. Entered as *Immensity, New York, New York Market, Salamander, Trianon Cos, Express Cos, Precocity,* and *Density.*

Hero. Vk.

Similar names. Vick's Hero.

Hittinger's Belmont. Brk Raw Til.

Similar names. See *Hittinger's Belmont Forcing.*

Hittinger's Belmont Forcing. Brt Bur Drr Emr Fqr Gry Hlm *K&W* Rs S&F.

Similar names. Hittinger's Belmont, Hittinger's Forcing.

Seedsmen's synonyms. *Hotbed,* Bur.

Hittinger's Forcing. Ggy. For similar names see *Hittinger's Belmont Forcing.*

Holmes' Giant Crystal Head, Holmes' Improved Boston Market. Entered as *Giant Crystal Head* and *Boston Market.*

Hornberger's Dutch Butter. Brw J&S. For similar names see *Dutch Butter.*

Hotbed. Bur. For similar names see *Hothouse.*

Seedsmen's synonyms. *Hittinger's Belmont Forcing,* Bur.

Hothouse. Bkt Elt TG Hlm *J&S* Kra Mrs Raw *Ree* Tat Til Vk.

Similar names. Rawson's Hothouse, Elliott's Hothouse, Boston Hothouse, Hothouse Forcing, Hotbed.

Seedsmen's synonyms. *Boston,* Ebr.

Hothouse Forcing. Ggy. For similar names see *Hothouse.*

Houston Market. Thm.

Hubbard. Cox May. For similar names see *Hubbard's Market.*

Hubbard's Forcing. Hrv. For similar names see *Hubbard's Market.*

Hubbard's Market. Agn Bgs Cle CF Fer Gls Gdn GH TG Hlm Lan Lnr Mrs Ptt Rce Sal Shw S&W Thr Til.

Similar names. Hubbard's Forcing, Hubbard.

Iceberg. Alr Bkt *Bd* Ber Brk Bri Buc Bur *CE* Col Cox D&H Elt Fmr Frd Gdn *Gra* GN Gry Ham Hrs Hst *H&C* Hlm Hse H&P Inl Iow Jer MWJ J&M J&S Jns Lnr *LB* Liv JL Lon Mgd Man PM Mau *May McK* Mhl Mls Mrs Nef NK Pac Pg HP Pne *Put* Poo Qkr Ree Ren Rce Roc *Roh* Sal S&F Shw Shm Sie S&W *Tex* Thr Til *Vl* Vau *Wat* WS Yng.

Ice Cos. Bdg.

Ice Drumhead. Bdg Buc Cox Ebe Gdn Kei *Pac* Roc Sal Tat T&B Vi

Similar names. See *Drumhead.*

Seedsmen's synonyms. *Malta,* Bdg. *Royal Cabbage,* Bdg.

Ice Head. Gdn.

Iceland. Pg.

Immensity. Hen.

Similar names. Henderson's Immensity.

Imperial Asiatic. Dlw. For similar names see *Imperial Cabbage.*

Imperial Cabbage. Crg Lan Stw *WS.*

Similar names. Tait's Imperial Cabbage, Imperial White Cabbage, Imperial Asiatic.

Imperial White Cabbage. MWJ Vk. For similar names see *Imperial Cabbage.*

Improved Big Boston, Improved Black-Seeded Simpson, Improved Crosman, Improved Deacon, Improved Defiance Summer, Improved Early Black-Seeded Simpson, Improved Early Hanson, Improved Emperor William, Improved Hanson, Improved Hanson Hard Head, Improved Large Black-Seeded Tennis Ball, Improved Large Hanson, Improved Large Passion, Improved Mammoth Salamander, Improved New York, Improved Royal, Improved Salamander, Improved Silver Ball, Improved White-Seeded Simpson, Improved Yellow-Seeded Butter. Entered as *Big Boston, Black-Seeded Simpson, Crosman, Deacon, Defiance Summer, Early Black-Seeded Simpson,* etc.

India. Ebe *MWJ* Mrs.

Similar names. Large India, Curled India, Large Curled India.

Seedsmen's synonyms. *Prize Head,* Ebe.

Italian Ice. Koe.

Jacob's Early Cabbage. Jac. For similar names see *White Cabbage.*

Johnson & Stokes' Champion Spring and Summer, Johnson & Stokes' Summerlead, Johnson & Stokes' Hothouse. Entered as *Champion Spring and Summer, Summerlead,* and *Hothouse.*

Kaiser Wilhelm. Sal.

Kansas City Market. *Trm.*

Kansas City White-Seeded Forcing. Pnt.

Similar names. See *White-Seeded Forcing.*

Keene. *Vk.*

Kendel's Excelsior Head. Ken. For similar names see *Excelsior.*

King of the Garden. *Nol.*

Kingsholm Cos. Drr Mrs.

King's Royal. Entered as *Royal.*

Laciniated Beauregard. Sal.

La Crosse Market. Sal.

Lancaster. Bur.

Landreth's Early Summer. Lan. For similar names see *Summer.*

Landreth's Forcing. Bri Lan.

Landreth's Heat-Resisting Cos, Landreth's Unsurpassed. Entered as *Heat-Resisting Cos* and *Unsurpassed.*

Large Black-Seeded Butter. Bdg.

Large Boston. Ggy Ken Nol. For similar names see *Boston Market.*

Large Boston Market. Thr. For similar names see *Boston Market.*

Large Butter Head. Col. For similar names see *White Butter Head.*

Large Curled India. Min. For similar names see *India.*

Large Drumhead. Bow Cle Ger Hrn Lam LB Min Nl Pks Pug Shw.

Similar names. See *Drumhead.*

Seedsmen's synonyms. *Malta,* Ger. *Victoria Cabbage,* Lam LB Pks Shw.

Large Gray-Seeded Butter. Thr. For similar names see *Gray-Seeded Butter.*

Large Hanson. Bow Bgg Hrn RHJ JMP. For similar names see *Hanson.*

Large Ice Drumhead. Shm. For similar names see *Drumhead.*

Large India. CF Crs W&D. For similar names see *India.*

Large Loaf. G&T Mrs.

Similar names. White Loaf, Bolgiano's White Loaf, Large White Loaf, Sugar Loaf.

Large Passion. Bow Cox Eic Gra *Pac Sox* Tex T&B. For similar names see *Passion.*

Large Salamander. Bui. For similar names see *Salamander.*

Large White Cabbage. Mzy Shw. For similar names see *White Cabbage.*

Large White Loaf. Mns. For similar names see *Large Loaf.*

Large White Russian. Mns. For similar names see *Russian.*

Seedsmen's synonyms. *Big Head*, Mns.

Large White-Seeded Tennis Ball. C&J.

Similar names. See *Black-Seeded Tennis Ball.*

Large White Summer Cabbage. *CE* C&B Cur Hen Mas Neb Rce Vl.

Similar names. See *White Cabbage.*

Large White Winter. RHJ. For similar names see *Hardy Green Winter.*

Large Yellow Butter. Pri Til. For similar names see *Yellow-Seeded Butter.*

Large Yellow Market. Bui Gdn.

Largest of All. MWJ Koe Lan Mel Stw.

Leaving. Lea.

Leaving's Improved. Entered as *Leaving.*

Lettuce No. 37. *G.V.*

Leviathan. Elt.

Limagne Cos. Mau.

Livingston's Bon Ton. Entered as *Bon Ton.*

London Cos. C&B.

Seedsmen's synonyms. *Paris White Cos*, C&B.

Long Island Winter. Lan.

Longstreth's Earliest. Lon. For similar names see *Earliest Forcing.*

Longstreth's Prize Head. Entered as *Prize Head.*

Los Angeles Market. J&M.

McCullough's Nonpareil. Entered as *Nonpareil.*

McKenzie's Prairie Queen. Entered as *Prairie Queen.*

McMillan's Atlanta Market. Entered as *Atlanta Market.*

McMillan's Cabbage. McM.

Magnum Bonum. M&S *Nol.*

Similar names. Moore's Magnum Bonum.

Malta. Anb Bdg CF Cur Ger Hrv Kei Lea Mnd Mrs Ren Sim SB W&D.

Seedsmen's synonyms. *Drumhead*, Cur CF Kei Mnd Mrs Ren W&D, etc. *Ice Drumhead*, Bdg. *Large Drumhead*, Ger. *Royal Cabbage*, Bdg.

Mammoth Black-Seeded Butter. Bkt *Blg* Bri Bng Buc *Bur* C&B Cox Dlw DD Elt Fqr Fer Gls GH Hen Lan *Lur* Liv Loh Mrs Nol Roc *Sim* S&W Thr Tlh W&D Wdr.

Similar names. See *Black-Seeded Butter.*

Mammoth Cabbage. Jns.

Mammoth Erfurt Yellow. Dlw.

Mammoth Head. Pri.

Similar names. Price & Knickerbocker's Mammoth Head.

Mammoth Salamander. Drr Frd J&S Liv M&S Nol *Shw.*

Similar names. See *Salamander.*

Mammoth Yellow-Seeded Butter. H&P *Vl.*

Similar names. See *Yellow-Seeded Butter.*

Mann's Defiance Summer. Mns. For similar names see *Defiance.*

Marblehead Mammoth. Bel *CE* Ggy Hst Liv Mrs Ree *Thm* Til.

Similar names. Shumway's Mammoth.

Market Garden Salamander. Brw. For similar names see *Salamand* .

Market Gardener's Forcing. Alr.

Similar names. See *Market Gardener's Private Stock.*

Market Gardener's Private Stock. Btl Bgg Bdg Bur C&B Ebr Fer *Ggy* TG Lan Mrs Mzy Shw Tex Thr Til Wdr WS.

Similar names. Schwill's Market Gardener's Private Stock, Thorburn's Market Gardener's Private Stock, Market Gardener's Forcing, Dickmann's Private Stock, May's Market Gardener.

Marvel. RHJ.

Seedsmen's synonyms. *Red Besson*, RHJ.

Mastodon. *Ar.*

Maule's Improved Hanson. Entered as *Hanson.*

Maule's Philadelphia Butter. Mau. For similar names see *Philadelphia Butter.*

Maximum. *Bur* Ebr *Fqr* Ggy *Mau* Mrs Mzy S&F Thr *W&D* Vau.

Similar names. Thorburn's Maximum.

May's Early Challenge. Entered as *Early Challenge.*

May's Market Gardener. May OV *Tpk.*

Similar names. See *Market Gardener's Private Stock.*

Mette's Forcing Head. Dlw.

Meyers' All Right. Bri Ggy J&S Mau Mrs *Shw.*

Similar names. Michell's All Right Spring and Autumn, All Right Spring and Autumn.

Michell's All Right Spring and Autumn. Entered as *All Right Spring and Autumn.*

Michell's Very Best. Mhl.

Mignonette. Bdg Buc Bur C&B Col *Drr* Elt *Fqr* Grw Hen Hlm Iow *MWJ* J&S Lam Mas Mau Mrs Rtk Ree Roc Shw Sie S&W Thr Tlh Wll.

Seedsmen's synonyms. *Salad*, Lam.

Mills' Earliest. Mls. For similar names see *Earliest Forcing.*

Milly. Gra Vau.

Mongolian. J&S.

Moore's Champion Spring and Summer, Moore's Magnum Bonum, Moore's Summer Gem. Entered as *Champion Spring and Summer*, *Magnum Bonum*, and *Summer Gem.*

Morse. Bkt Bur D&H Frd *Ggy* TG Ham Hlm Iow J&S Lnr Mau McM Mrs NK *Por Ree* Sal S&R Vau *Wat.*

Nansen. Bur Gry Mrs Mzy.

Neapolitan. *McK.*

Neapolitan Sash. M&S.

Similar names. Simon's Neapolitan Sash, Neapolitan.

New Orleans. Agn.

New Orleans Large Passion. *Eic* Stk. For similar names see *Passion.*

New York. Agn Alx Alr Bkt Bou Brk Bdg Bgs Bri Bui Bur Cam *CE* Cle C&B CF Cox Crs Cur Del Ebe Elt Evr Fqr Frd Ger GH Gng G&T TG Hrv Haw Hen Hbt Hlm J&S Lan Lnr Mnd Man *Mns* Mas Mau May Mrs Nol NK OV HP JMP Pne Ptt Poo Pot Pri Ree Rce Rt Rs Shw Shm *Sie* S&H S&W Tem Thr *Tpk Vl* Vau *Wat* Wea W&D Wer Wll Wdr WS Wyg Yng Y&H.

Similar names. Henderson's New York, Henderson's New York Market, Henderson's Improved New York, New York Market, Improved New York, New York Cold Frame, New York Market Gardener's, New York Black-Seeded Butter.

Seedsmen's synonyms. *Wonderful*, Frd Bur J&S.

New York Black-Seeded Butter. *CE Gra* Ree.

Similar names. See *New York*, *Black-Seeded Butter.*

New York Cold Frame. Crs.

Similar names. See *New York*, *Cold Frame White Cabbage.*

New York Market. Ar Brt Buc Emr Gra Hns Lon Roc Sal Thm.

Similar names. See *New York.*

New York Market Gardener's. Y&H.

Similar names. See *New York*, *Market Gardener's Private Stock.*

Ninety and Nine. Crs.

Noll's Boston Glasshouse. Entered as *Boston Glasshouse.*

Nonpareil. Bru RE Ewg Gra Gng Kei JMM McK Mrs Ren Sim SB.

Similar names. Bruce's Nonpareil, McCullough's Nonpareil, Rennie's Nonpareil, Simmers' Nonpareil.

Seedsmen's synonyms. *Deacon*, JCM.

Norfolk Royal. Lan. For similar names see *Royal.*

North Pole. Bur *Mrs.*

Northrup, King & Co.'s Golden Ball, Northrup, King & Co.'s Sterling. Entered as *Golden Ball* and *Sterling.*

Norwood. *JMM.*

Number One. M&S.

Number Thirty-Seven. GN.

Oak-Leaved. Blg Bui Brr *CE* Drr Ggy Hrv Hnt H&P Lnr Liv Mau May JMM Mrs *Pnt* Raw Ree Sal SC S&F S&O TB Vin.

Similar names. American Oak-Leaved, Baltimore Oak-Leaved, Southern Blunt Point Oak-Leaved.

Ohio Cabbage. SB Til. For similar names see *Extra Early Ohio.*

Onondaga. Bur Drr *Ree.*

Similar names. Onondaga Market Garden.

Onondaga Market Garden. Ebe. For similar names see *Onondaga.*

Pan-American. Mls.

Paris Early White Cos. RHJ. For similar names see *Paris White Cos.*

Paris Green Cos. Bdg RE Ewg Gra Kei Pnt SC Sim.

Similar names. See *Paris White Cos.*

Seedsmen's synonyms. *Romaine*, Bdg.

Paris Self-Closing White Cos. Bur Mrs. For similar names see *Paris White Cos.*

Paris Sugar. Dlw.

Paris White Cos. Brd Brt Btl Bow Brk Bdg Bru Bue Bui Brr Cam *CE* Chl C&B Crs Drr Eic RE Ewg Fmr Fqr Ger Gls Gra Gng Ggy Gry G&T Hns Hrs Hro Hst Hen Hbt Hlm *RHJ* J&M Jns Kei Lnr Mnd May JCM JMM McK MV Pac Pks Prn Ptt Por Pot Pri Ren Ree Roc S&R SC S&F Shm Sim SB Stk S&H Tem Thm Vau Vk Vin Wea W&D Yng *Y&H.*

Similar names. Paris Green Cos, Paris Early White Cos, Paris Self-Closing White Cos, Self-Closing Cos.

Seedsmen's synonyms. *Celery*, Bui Hlm. *London*, C&B. *Romaine*, Bow Bui Eic Fqr Vin Wea, etc. *Ice Cos*, Bdg.

Parisian Celery Cos. M&S. For similar names see *Celery Cos.*

Passion. Bai Bak May Mrs Pac *Pnt* Sal Shw Tem Thm Vin.

Similar names. Large Passion, Improved Large Passion, Cox's Improved Large Passion, Frotscher's New Orleans Improved Large Passion, California Passion, San Francisco Passion, New Orleans Large Passion.

Seedsmen's synonyms. *San Francisco Market*, Pac.

Peer of All Summer. Sal.

Pennsylvania White Cabbage. Shw. For similar names see *White Cabbage.*

Perfected Salamander. Entered as *Salamander.*

Perfection White Forcing. Bui. For similar names see *White Forcing.*

Perpetual. *CE* Frd Haw May Mrs Nol JMP Ree Wll.

Similar names. Shumway's Perpetual.

Seedsmen's synonyms. *Curled Simpson*, Wll. *Black-Seeded Simpson*, Frd. *Improved Simpson*, Nol.

Perpignan. Bdg Bri Bui Ggy J&S Mnd Mrs Stk.

Similar names. Perpignan Defiance Summer.

Seedsmen's synonyms. *Defiance*, Bri. *Defiance Summer*, J&S Liv Vau. *Early Green Summer*, Bui. *Summer*, Bdg.

Perpignan Defiance Summer. Kra. For similar names see *Perpignan, Defiance.*

Philadelphia Butter. Agn Anb Bow Buc *CE* Cle Cox GH TG Hde Hst H&C *RHJ* Lam LB Liv Loh Mgd PM Mns May JCM Mrs *Pac* Pks Por Pug Rce Roc *Roh* S&R Sie Tex Thm Tpk Trm T&B Vk Vin.

Similar names. Philadelphia Market, Maule's Philadelphia Butter, Philadelphia Late White Butter, Philadelphia Early Butter, Philadelphia Early Cabbage, Philadelphia Early White Cabbage, Philadelphia Cabbage.

Seedsmen's synonyms. *Early White Head*, Anb Hde Lam Liv JCM LB Pks. *Philadelphia Cabbage*, Trm.

Philadelphia Cabbage. *Wat.* For similar names see *Philadelphia Butter.*

Philadelphia Early Butter. Pg. For similar names see *Philadelphia Butter.*

Seedsmen's synonyms. *Early White Head*, Pg.

Philadelphia Early Cabbage. Pac. For similar names see *Philadelphia Butter.*

Philadelphia Early Dutch Butter. Bur Hlm *Wat.*

Similar names. See *Dutch Butter.*

Philadelphia Early White Cabbage. Bur Fst Hlm J&S *LB PM* Wat.

Similar names. See *Philadelphia Butter.*

Philadelphia Late White Butter. Lan.

Similar names. See *Philadelphia Butter.*

Philadelphia Market. Bui. For similar names see *Philadelphia Butter.*

Philadelphia Speckled Dutch Butter. GH J&S.

Similar names, See *Dutch Butter.*

Philadelphia White Dutch Butter. Min. For similar names see *Dutch Butter.*

Philipps' Early White Cabbage. Entered as *Early White Cabbage.*

Pink-Edged Victoria. Kei. For similar names see *Victoria.*

Plant Seed Co.'s Early White Cabbage, Plant Seed Co.'s Standwell. Entered as *Early White Cabbage* and *Standwell.*

Prairie Queen. *McK.*

Precocity. *Hen.*

Premier. Sim.

Similar names. Simmers' Premier.

Premium Cabbage. Brn *CE* Cle Eas Gls H&P Jns PM Mns Mrs Rce *Shw* Vk.

Similar names. Vick's Premium Cabbage.

Price's Heat-Resisting. *Pri.* For similar names see *Heat-Resisting Cos.*

Price & Knickerbocker's Improved Early Curled Silesia, Price & Knickerbocker's Mammoth Head. Entered as *Early Curled Silesia* and *Mammoth Head.*

Prince of Wales Cos. Gra.

Private Stock. *W&D* Wer.

Prize Head. Agn Anb Ar Bai *Bak* Brd Bou Bgg Bgs Brn Brb Cle CF *Crg* Cur Ebe Fqr Fst Fld Ger GH Gra Gry Grw Hns Hde Hrn Hrv Hst H&C Hly Hop Iow Jns Koe Kos Lan Lnr Liv JL Lon Mgd Man May Mrs Neb NI NK OV HP Pir Pnt Pri Pug *Roh* Rs RP Sal SC Shw Shm Spf Tex *Thm* Tlh Thr Til *Tpk* Trm *Vl* Vau Web Wer.

Similar names. Early Prize Head, Briggs' Prize Head, Burpee's Prize Head, Currie's Prize Head, Ferry's Prize Head, Ferry's Early Prize Head, Longstreth's Prize Head, Quaker City Prize Head, Red-Fringed Prize Head, Salzer's Prize Head, Shumway's Prize Head.

Seedsmen's synonyms. *Brown Cabbage*, J&S. *Early Brown Cabbage*, HP. *India*, Ebe. *Satisfaction*, Ar Lan.

Quaker City Prize Head. Qkr. For similar names see *Prize Head.*

Rawson's Crumpled Leaf, Rawson's Hothouse. Entered as *Crumpled Leaf* and *Hothouse.*

Red Besson. Ggy RHJ.

Seedsmen's synonyms. *Marcel*, RHJ.

Red-Edged Victoria. *CE* Cle *RHJ* Ren Rce Sim SB. For similar names see *Victoria.*

Red-Fringed. Ebe.

Seedsmen's synonyms. *Green-Fringed*, Ebe.

Red-Fringed Prize Head. Kei. For similar names see *Prize Head.*

Red Winter Cos. Ger.

Reichner's Butter. Nol Tat Thr.

Similar names. Reichner's White Butter, Reichner's White Butter Forcing, Reichner's Early White Butter, Reichner's Forcing.

Reichner's Early White Butter. J&S. For similar names see *Reichner's Butter.*

Reichner's Forcing. *Ree.* For similar names see *Reichner's Butter.*

Reichner's White Butter. Bkt. For similar names see *Reichner's Butter.*

Reichner's White Butter Forcing. Mrs. For similar names see *Reichner's Butter.*

Relish. Iow.

Rennie's Nonpareil. Entered as *Nonpareil.*

Rochester Market. Gls.

Romaine Cos. Bow Brk Bdg Bui *Cam* Drr Eic Lan Mhl Pnt Raw S&W T&B *Wat* Wea.

Similar names. See *White Cos.*

Seedsmen's synonyms. *Celery*, Bui Fmr Ken Mhl. *Cos*, Mhl Fmr. *Green Paris Cos*, Bdg. *Paris White Cos*, Brk Bow Bui Eic Fqr Vin, etc. *Summer Endive*, Fmr. *Trianon Self-Closing Cos*, Ken.

Rosedale. D&H.

Royal. Alx Blg Bou Bdg Bui Bur Brr Cam Cle Crg DD Eic Gdn Kg Koe Lan *Mel* Min Stk Tat Tex Vk Vin.

Similar names. Improved Royal, Norfolk Royal, King's Royal, Vick's Royal, Royal Summer, Cox's Royal Summer, Royal White Summer, Royal White Cabbage.

Seedsmen's synonyms. *Cream Butter*, Bui. *California Cream Butter*, Bur Brr. *Ice Drumhead*, Bdg. *Malta*, Bdg. *Summer Drumhead*, Tex.

Royal Summer. Cox Fer Grw Mhl Mrs Nol *Pac* Ree Shw Til T&B.

Similar names. See *Royal.*

Seedsmen's synonyms. *California Cream Butter*, Alx Grw J&S Nol Pnt. *Winter*, Fer.

Royal White Cabbage. GH Shw Tat. For similar names see *Royal.*

Royal White Summer. SC. For similar names see *Royal.*

Seedsmen's synonyms. *Drumhead*, SC.

Rudolph's Favorite. Fmr Iow Vau.

Similar names. Gardener's Favorite, Sutton's Favorite, Florida Favorite, Florida Header.

Seedsmen's synonyms. *Buttercup*, Fmr.

Russian. Mrs.

Similar names. White Russian, Large White Russian.

Seedsmen's synonyms. *Large Black-Seeded Butter*, Bdg. *Turkish Cabbage*, Bdg.

St. Louis. Brd Ewg Gra Lnr.

Similar names. St. Louis Butter, St. Louis Market, St. Louis Forcing Black-Seeded.

St. Louis Butter. Agn Cur DD Mrs Shw Vau War.

Similar names. See *St. Louis.*

St. Louis Forcing Black-Seeded. DD Pnt SC Wer.

Similar names. See *St. Louis.*

St. Louis Market. Brd *DD* Ebr Hde Neb Pnt SC Shw Tex Wyg Yng.

Similar names. See *St. Louis.*

Salad. Lam.

Seedsmen's synonyms. *Mignonette*, Lam.

Salamander. Agn Alr Bak Brd Bkt Bel Blg *Bgg* Brk Bdg Bri Brn Bng Brb *Bur* Brr Cam *CE* Cle C&B Col CF Crs Cur Dlw Del *DD* Drr Elt Ewg Fqr Fst Fer Ger Gls Gdn GH Gra Ggy Gry Gfg G&T Grw TG Hrm Hrv Hst Hen *H&C* Hlm Hop Hnt H&P Iml Iow Jac Jer J&S Kei K&W Ken Kg Lan Lnr Liv Loh Lon Mnd Man PM *Mas* Mau May JMM McM Mhl MV M&S Mrs Mzy Nol NK *Pac* Pg HP Prn Ptt Pri Raw Ren Rce *Roh* RP Sal SC S&F Shm *Sox* S&H S&W Thr Thb Til T&B *VI* Van Vk Vin Wea W&D Wdr WS Wyg Yng Y&H.

Similar names. Perfected Salamander, Henderson's Perfected Salamander, Improved Salamander, Improved Mammoth Salamander, Mammoth Salamander, Large Salamander, Market Garden Salamander.

Seedsmen's synonyms. *Frankfort*, Sox. *Frankfort Head*, Bak Loh. *Satisfaction*, Bdg Brr Ggy Iml Ptt Vk.

Salzer's Colossal Head. Sal. For similar names see *Tait's Colossal Cabbage.*

Salzer's Earliest. Sal. For similar names see *Earliest Forcing.*

Salzer's Early Simpson, Salzer's German Butter Head, Salzer's Prize Head, Salzer's Sunlight, Salzer's Wonderful. Entered as *Early Simpson*, *German Butter Head*, *Prize Head*, *Sunlight*, and *Wonderful.*

Sandahl. Pug.

San Francisco Market. Bow Buc Bur TG *LB* Pac Roc Sal Yng.

Seedsmen's synonyms. *Deacon*, Buc Bur Ren Sie Yng. *Passion*, Pac.

San Francisco Passion. Bui. For similar names see *Passion.*

Satisfaction. Ar Bdg Bgs Brr *CE* Cle CF Cox Cur Ebe GH Gra Ggy TG Hst Iml Lan Loh Ptt Rce Sal Vk Vin.

Similar names. White-Seeded Satisfaction.

Seedsmen's synonyms. *Salamander*, Bdg Brr Ggy Iml Ptt Vk. *Prize Head*, Ar Lan.

Saunders. Bkt.

Savoy. Chl Grw Kg.

Seedsmen's synonyms. *Denver Market*, Chl Grw Ham Kg.

Schwill's Hard Head. Shw. For similar names see *Hard Head.*

Schwill's Market Gardener's Private Stock. Entered as *Market Gardener's Private Stock.*

Self-Closing Cos. Alx. For similar names see *Paris White Cos.*

Seedsmen's synonyms. *Trianon*, Alx.

Sensation. Brt Brk Bri Bui Brw C&B DD Drr Drm *Dun H&C* Hlm Hop Hme J&S Jns Mhl M&S Nol Pot Raw S&F *Shw* Tat Tem Thr Tlh Til Wll.

Shotwell's Brown Head. Bdg Mrs Mzy Prn Thr *WS.*

Similar names. See *Brown Head.*

Shumway's California Cabbage. Shm.

Similar names. See *California Cream Butter.*

Shumway's Mammoth. Shm. For similar names see *Marblehead Mammoth.*

Shumway's Perpetual. Shm. For similar names see *Perpetual.*

Shumway's Prize Head. Entered as *Prize Head.*

Silver Ball. Anb Btl Bri Buc Bui Bur C&J *CE* Cle Cur Dlw Drr Drm Fst Fer Frd GH TG Hns Hlm J&M J&S Lan Lnr Liv Mgd Mau JMM Mhl Mls M&S Mrs Neb Pac Pg HP Ree Rce Roc Sim S&W Tat Tem Trm Vau *Wat Wer* Wlt.

Similar names. Burpee's Silver Ball, Improved Silver Ball.

Simmers' Nonpareil, Simmers' Premier. Entered as *Nonpareil* and *Premier.*

Simon's Early Speckled Dutch Butter, Simon's Neapolitan Sash, Simon's Summer Queen Drumhead, Simon's White Peach. Entered as *Early Speckled Dutch Butter*, *Neapolitan Sash*, *Summer Queen Drumhead*, and *White Peach.*

Simpson's Curled Silesia. Bdg. For similar names see *Early Curled Silesia.*

Seedsmen's synonyms. *Early Cut Salad*, Bdg.

Slow Seeder. Gfg Lan.

Solid-Headed Yellow Butter. Bgs. For similar names see *Yellow-Seeded Butter.*

Southern Blunt Point Oak-Leaved. Ree. For similar names see *Oak-Leaved.*

Southern Heart. Sal.

Speckled Dutch Butter. Cle Dlw Lan Mhl Mrs Nol Rim Stw TB.

Similar names. See *Dutch Butter.*

Seedsmen's synonyms. *Early Cabbage,* Dlw.

Spotted. Fqr.

Seedsmen's synonyms. *Trout,* Fqr.

Standwell. Del Pnt.

Similar names. Plant Seed Co.'s Standwell, Farquhar's Long-Standing.

Steckler's French Market. Stk.

Sterling. NK.

Similar names. Northrup, King & Co.'s Sterling.

Stinger's Early Hardy White Butter Head. M&S.

Similar names. See *White Butter Head.*

Stone Black-Seeded Tennis Ball. Nol Thr.

Similar names. See *Black-Seeded Tennis Ball.*

Stubborn Head. Bui Van Wer.

Similar names. Stubborn Head Yellow, Stubborn Seeder.

Stubborn Head Yellow. Dlw. For similar names see *Stubborn Head.*

Seedsmen's synonyms. *Trotzkopf,* Dlw.

Stubborn Seeder. *Mau.* For similar names see *Stubborn Head.*

Sugar Loaf. Ggy Ree. For similar names see *Large Loaf.*

Summer. Bdg.

Similar names. Bolgiano's Black-Seeded Summer, Griffith & Turner Co.'s Black-Seeded Summer, Black-Seeded Summer, Landreth's Early Summer, Early Green Summer, Tait's Midsummer, Summerlead, Johnson & Stokes' Summerlead.

Seedsmen's synonyms. *Perpignan,* Bdg.

Summer Drumhead. Tex. For similar names see *Drumhead.*

Seedsmen's synonyms. *Royal Cabbage,* Tex.

Summer Gem. M&S. For similar names see *Toronto Gem.*

Summer Queen Drumhead. M&S. For similar names see *Drumhead.*

Summerlead. Bur Haw J&S May. For similar names see *Summer.*

Sunlight. Sal. For similar names see *Sunset.*

Sunset. Fmr Frd Mnd Sal S&W W&D Yng.

Similar names. Golden Sunset, Salzer's Sunlight, Sunlight.

Seedsmen's synonyms. *Blonde Beauty,* Frd Fmr Liv Yng. *Blonde Blockhead,* Frd Fmr Mnd S&W W&D.

Superb. Buc Roe.

Similar names. Buckbee's Superb.

Sutton's Favorite. Mhl. For similar names see *Rudolph's Favorite.*

Sutton's Giant. Mhl.

Tait's Colossal Cabbage. Tat.

Similar names. Salzer's Colossal Head.

Tait's Imperial Cabbage. Tat Tem. For similar names see *Imperial Cabbage.*

Tait's Midsummer. Tat. For similar names see *Summer.*

Tender and True. Mls.

Tennis Ball. Bri Cam Crg Drw Ewg Gdn Hnt *MWJ* RHJ Kei Koe NI *Pat* Pri Shw Sim Thm Vin Web W&D.

Similar names. See *Black-Seeded Tennis Ball.*

Seedsmen's synonyms. *Boston Market,* Blg Bru Hrm Lea PM Vk, etc.

Thick Head Yellow. Bur Hlm Mns Mau M&S Vk.

Thorburn's Glass House, Thorburn's Mammoth Black-Seeded Butter, Thorburn's Market Gardener's Private Stock, Thorburn's Maximum, Thorburn's Yellow

Winter. Entered as *Glass House*, *Mammoth Black-Seeded Butter*, *Market Gardener's Private Stock*, *Maximum*, and *Yellow Winter*.

Tilton's White Star. Alr Brd Bri Buc *CE* Cur Evr Fer Fle Frd GH Hlm H&P J&S Kos Lam Lnr LB Liv Mau Mrs Neb Por Ree Roc S&R S&O Shm Tem *Thr* Til Vl Vau WS.

Similar names. White Star, White Star Forcing.

Tomhannock. Alr Bel *Bgg* Buc Bur Brr C&J *CE* Chl Cle CF Cox Cur Emr Evr Fqr Fst Frd Ger GH TG Ham Hst Hlm H&P Liv May Mls Mrs *Pac* Pot Raw Ree Ree Roc S&F Shw Shm Tem T&B *Wat* Wll.

Similar names. Burpee's Tomhannock, Bronzed Tomhannock.

Tom Thumb. Bur Ewg Fqr Gra *Mns* Mrs Pks Ren *Wat*.

Similar names. Wheeler's Tom Thumb.

Toronto Gem. Fle *McK* SB.

Similar names. Moore's Summer Gem, Summer Gem.

Toronto Market. Sim SB.

Treasure. J&S Min Nol.

Trianon Cos. Alx Alr Brd Blg C&B RE Frd *Gls* GH TG Hrs Hen Hse MWJ RHJ J&S Kg Liv Man JMM Mrs Mzy Neb Prn *Put* Pot Raw Ren Shm Spf SB Tat Tem Vau W&D Wd WS.

Similar names. Henderson's Trianon Cos, Trianon Self-Closing Cos, White Trianon Cos.

Seedsmen's synonyms. *Self-Closing Cos*, Alx. *Celery*, Hen Kg Liv Tem J&S Ren, etc.

Trianon Self-Closing Cos. Brk Bdg *CE* Crs Drr Ebr Elt Fqr Ger Grw *Hrs* Ken Mnd Nol Ree S&F Sim S&W Thr Til Vin Wea.

Similar names. See *Trianon Cos*.

Seedsmen's synonyms. *Celery*, Ken. *Romaine*, Ken.

Triumph. Mns.

Similar names. Australian White Triumph.

Trocadero. Alx Bui Cle Eic Gdn Hrm *H&C* Pnt *Shw* Stk Thr.

Trotzkopf Large Brown. Koe.

Similar names. See *Trotzkopf Large Yellow*.

Trotzkopf Large Yellow. Koe.

Similar names. Trotzkopf Large Brown.

Trout. Fqr.

Seedsmen's synonyms. *Spotted*, Fqr.

Turkish Butter. M&S.

Twentieth Century. Nol.

Unrivalled. Bru *Sim*.

Unsurpassed. *Lan*.

Vick's Hero, Vick's Premium Cabbage, Vick's Royal. Entered as *Hero*, *Premium Cabbage*, and *Royal*.

Victoria. Bdg Ewg Gra Hrm Hrv K&W Lam LB Pks Shw.

Similar names. Pink-Edged Victoria, Red-Edged Victoria.

Seedsmen's synonyms. *Large Drumhead*, Lam LB Shw Pks. *Red-Edged Cabbage*, Bdg.

Vincent's Passion. Entered as *Passion*.

Virginia Solid Head. Koe Lan Stw.

Waldorf. *Hen Mrs*.

Wheeler's Tom Thumb. Entered as *Tom Thumb*.

White Batavian. RHJ.

White Butter Head. Alx *Brw* Cle Mhl M&S Stk Yng.

Similar names. White Dutch Butter Head, Salzer's German Butter Head, German Butter Head, Stinger's Early Hardy White Butter Head, Early White

Butter Head, Godden's Early Butter Head, Early Butter Head, Large Butter Head, Hamburger's Butter Head.

Seedsmen's synonyms. *Early Cabbage*, Bui Mhl Stk Yng.

White Cabbage. Alx Ar Brn Cam Dun Hrn Jns Kra May M&S NI Old Vau.

Similar names. White Cabbage Forcing, Forcing Cabbage, White Cabbage Winter, White Summer Cabbage, Large White Summer Cabbage, Large White Cabbage, Early White Cabbage, Plant Seed Co.'s Early White Cabbage, Philipps' Early White Cabbage, Early Cabbage, Godden's Early Cabbage, Jacob's Early Cabbage, Pennsylvania White Cabbage, Wood's Cabbage.

White Cabbage Forcing. May. For similar names see *White Cabbage.*

White Cabbage Winter. Cam. For similar names see *White Cabbage.*

White Chavigne. Bri Hrm Til.

White Cos. Bai Bdg Bri Cox Ebe Elt GH Hrm Koe Kra Lan *Pac* RP Sal *Shr* Thm T&B.

Similar names. Early White Self-Folding Cos, Burnell's White Cos, Cox's White Cos, Harris' White Cos, Dwarf White Heart Cos, Burpee's White Heart Cos, Giant White Cos, White Romaine Cos, Romaine Cos, Bloomsdale White Cos, Express Cos.

White Dutch Butter Head. Min. For similar names see *White Butter Head.*

White Forcing. Blg.

Similar names. Buist's Perfection White Forcing, California Giant White Forcing, Bolgiano's White Forcing.

White Giant. *Ewg.*

White Heart Cos. Bur M&S. For similar names see *White Cos.*

White Loaf. Blg PM M&S. For similar names see *Large Loaf.*

White Peach. M&S.

Similar names. Simon's White Peach.

White Romaine Cos. Elt Mzy Nol S&W Tat Thr.

Similar names. See *White Cos.*

White Russian. Hlm J&S Mhl Nol. For similar names see *Russian.*

White-Seeded Forcing. Blg Gdn.

Similar names. Kansas City White-Seeded Forcing.

White-Seeded Satisfaction. Cle. For similar names see *Satisfaction.*

White-Seeded Simpson. Brt Bkt Mnd May JCM Nol S&O Thm Vl.

Similar names. See *Black-Seeded Simpson.*

Seedsmen's synonyms. *Perpetual*, Nol. *Early Curled Simpson*, JCM.

White-Seeded Summer. G&T.

White-Seeded Tennis Ball. Agn Alx Bai Brd Blg Bgg Bru Buc Bui Bur Brr *CE* Cle CF Cox *DD* Dun Emr Fqr Fst Fax Gdn GH Ggy Gry Grw Hrm Hrn Hrs Hrv J&S Kra Lan *LB* Liv Mnd PM Mns May JCM JMM MV Mrs Mzy Nol NK OV HP Prn Pne Ptt Pot Raw Ree Roc *Roh* Rs SC S&F S&O Sie Sox *S&W* Tex Thr Til *Tpk* Trm Vau Vk Web Wd Wdr.

Similar names. See *Black-Seeded Tennis Ball.*

Seedsmen's synonyms. *Boston Market*, Brt Brd Bur Elt Ger Hrs, etc. *Early Boston Market*, Buc Bui.

White Star. Bkt Hly Ken May NK. For similar names see *Tilton's White Star.*

White Star Forcing. May. For similar names see *Tilton's White Star.*

White Stone Head. Mic.

White Summer Cabbage. Agn Bdg Cle Elt Emr Fmr Fer Ger JL Mnd Man MV Mrs Nol NK *Pac* JMP Ptt *Por Roh* RP S&R Sox Spf SB Thm Thr T&B W&D.

Similar names. See *White Cabbage.*

Seedsmen's synonyms. *Stone Cabbage*, Bdg. *Winter Butter*, Bdg.

White Trianon Cos. Col. For similar names see *Trianon Cos.*

White Winter Cabbage. *Lam.*

Wonderful. Alx Bkt *Bgg* Buc Bur C&J D&H Drr Fqr Frd Ger Gng *G&T Ham* Hrs Hlm J&M Liv *Lnr* JL Mgd *Mas* May Mhl Mrs Nol NK Pne Roc Sal S&F Shw Sie Sim Tem Tlh Vl *Van W&D* Yng.

Similar names. Hammond's Wonderful, Salzer's Wonderful.

Seedsmen's synonyms. *Henderson's New York*, Frd. *Improved New York*, Bur. *New York*, J&S.

Wood's Cabbage. Wd WS. For similar names see *White Cabbage.*

Yellow Butter. May. For similar names see *Yellow-Seeded Butter.*

Yellow Queen. May. For similar names see *Golden Queen.*

Yellow-Seeded Butter. Brd Bur Cle C&B Cur DD Drr Fst Fer Frd Hen Hlm Kos Lnr Liv *May* JMM J&S M&S Mrs Pnt Por Rce S&R S&O W&D Wer Wdr Yng.

Similar names. Improved Yellow-Seeded Butter, Mammoth Yellow-Seeded Butter, Large Yellow Butter, Yellow Butter, Solid-Headed Yellow Butter.

Seedsmen's synonyms. *Golden Butter*, Wdr. *Golden Stone Head*, Bdg.

Yellow Winter. Thr.

Similar names. Thorburn's Yellow Winter.

MARTYNIA.

Martynia. Bkt D&H Ebe Elt Lam Mzy Pne Por Rs S&R Shm.

Craniolaria. Bdg Thr.

Lutea. Thr.

Proboscidea. Brd Brt Brk Bur C&B Crs Cur DD Drr Emr RE Fqr Fax Gry Hrm Hrn Hrv Hen J&S K&W Lnr Liv Mnd JMM Mhl MV M&S Nef Pg Prn Ptt Pot Raw Rce Roc SC S&F Sim S&W Tat Thr Wea W&D Wer Yng.

MELON. (See MUSKMELON and WATERMELON.)

MUSKMELON.

Acme. Bak Bkt Bow Bgs Bri Brn Buc Bui Bur Cam CE Cle C&B Cox Crg Cur Del DD Drm Evr Fqr Fst Fer Frd Gdn GH Gfg TG Hde Hrn Hlm Hnt Jac *MWJ* J&S Kg Koe Lam Lan Liv Loh PM Mau May JCM JMM M&S Neb NK OV Old Pac Pnt Ptt Por Rce Rob Roc Sal S&R Shw Shm Sox Spf Stw Tat Tex *Tpk* Vl Vk Wd WS.

Similar names. Baltimore Acme, Tait's Acme, Large Acme.

Seedsmen's synonyms. *Anne Arundel*, Ptt. *Baltimore*, Buc Bur Fqr Fer Mau Vk. *Baltimore Cantaloupe*, Pnt Sox. *Baltimore Citron*, Lan Mau. *Baltimore Market*, Bui Gdn Rob Thm. *Early Baltimore*, Bow Por S&R. *Baltimore Nutmeg*, Liv.

Albany Market. Y&H.

Similar names. Corning's Albany Market.

Ambulance. Koe.

American Breakfast. Pri Y&H.

Similar names. Price's American Breakfast, Paris Breakfast.

Anne Arundel. Alx Blg Bri Gra G&T Hlm MWJ J&S *Kg* Lan *Lnr* M&S Ptt Rcb Shw Stw Tat Til.

Seedsmen's synonyms. *Acme*, Ptt.

Arabian Sweet. Sal.

Arlington Green Nutmeg. GH Hlm Raw. For similar names see *Arlington Nutmeg.*

Arlington Long Yellow. GH Raw.

Similar names. See *Arlington Nutmeg*, *Long Yellow*.

Arlington Nutmeg. Brt Cle Ewg Fqr Fax Gry Pne Pot Rob S&F Shw Y&H.

Similar names. Arlington Green Nutmeg, Farquhar's Improved Arlington Nutmeg, Arlington Long Yellow.

Atlantic City. MWJ Lan.

Augusta Market. Alx.

Baltimore. Alr Bak Bkt Bgs Bri Brn Buc Bur Cam CE C&B Cox Cur DD Drm Evr Fqr Fst Fer Frd GH Ggy G&T TG Hde Hrn Hlm J&S Kg Lam Lnr Liv Loh PM Mns Mau May M&S Neb NK OV HP Pnt Rce Roc Shw Sox Spf Tex Vk Vin W&D Wd WS.

Similar names. Early Baltimore, Improved Large Baltimore, Large Baltimore, Baltimore Market, Bolgiano's Baltimore, Baltimore Acme.

Seedsmen's synonyms. *Acme*, Buc Bur Fqr Fer Lan Mau, etc. *Baltimore Citron*, Lan Mau. *Large Baltimore*, Shw.

Baltimore Acme. Lnr Vl. For similar names see *Baltimore*, *Acme*.

Baltimore Market. *Bgg* Bui Cle CF Gdn H&P Jac *Kg* MV Mzy Nef Shm *Sox* Tat Thm Thr Y&H.

Similar names. See *Baltimore*.

Seedsmen's synonyms. *Acme*, Bui Gdn Rob Tat Thm.

Banana. Alr Ar Brd Btl Bkt Bel Ber *Bgg* Bri Buc Bur Brr CE Chl Cle CCo Col Cox Crs Del DD Ebr Emr Evr Fst Fld Frd Ger GH *Gra* Gng GN Ggy Grw Hns Hst H&P Iml Iow J&S Jns Kg Lnr *LB* Liv JL Mau May MV M&S Neb Nef Nol NI NK Pac Pir Pnt Qkr Raw Ree Ren Rce Roc Rt Rs RP S&O Sox Spf SB Tat Tem TB *Thm* Thr Til Trm T&B Vl Vau Vin Web Wd WS Wyg.

Similar names. Improved Banana, Salzer's Mexican Banana, Mexican Banana.

Banquet. Bai Btl Bkt Bel Ber Bgg Bdg Bri Brn Buc Bui Bur *Brr* Cam *CE* Cle Col CF Cox Cur Del DD Eas Elt RE Evr Ewg Fqr *Fld* Frd Gls Gdn Gra Gry G&T TG Hns Hst Hen Hlm Hop Hse Iow Jac J&S Kg Kra Lnr Liv Mnd Man PM May JMM Mhl MV Mzy Neb NK Pac JMP Pne Pot Raw Ren Rce Rob Roc Sal S&F S&O Shm Sim Sox SB S&H Tem Thm Thr T&B Vk Vin Wea Web W&D Wer Wdr *Y&H*.

Similar names. Henderson's Banquet.

Bay View. Anb Baj Btl Bkt Bel Bow Bgg Brk Bdg Bri Brn Bru Bui Bur *Cam* CE Chl Cle CF Cox Crs Cur Del Drr Ebe Ebr Emr Ewg Fqr Fst Fax Fer Gdn Gra Ggy Gry TG Hns Haw Hbt Hlm H&P Iow J&S Jns K&F Kos Kra Lam Lea Lnr LB Liv JL Mgd Mau May Min MV M&S Mzy Neb Pac Pks JMP Pir Prn Pnt Pot Raw Ren Rce Rob Roc Rs RP Sal SC Shw S&O Sim Sox Spf SB Tpk T&B Vl Web Wyg.

Similar names. Burpee's Bay View, Maule's Bay View, Hybrid Bay View.

Beck's Columbus, Beck's Strawberry, Beck's Triumph. Entered as *Columbus*, *Strawberry*, and *Triumph*.

Beck's Ideal. Shm. For similar names see *Ideal*.

Bell's Improved Casaba. Entered as *Casaba*.

Berkeley. Mic.

Best of All. *S&F*.

Bijukdere. Ewg Koe.

Bird's Cantaloupe. Bgg Brn Emr Fqr.

Bishop's Favorite. Thr.

Similar names. Royal Favorite, Starn's Favorite, Newport Favorite.

Black Jap. Raw *S&F*. For similar names see *White Japan*.

Blenheim Orange. Mnd *S&F* Thr W&D. For similar names see *Orange*.

Bolgiano's Baltimore. Blg. For similar names see *Baltimore*.

Boston Mango. Bur PM. For similar names see *Mango.*

Boston Pet. TG.

Seedsmen's synonyms. *Christiana,* Ggy. *Orange Christiana,* TG.

Breck's Improved Emerald Gem. Entered as *Emerald Gem.*

Buckbee's Ideal. Buc. For similar names see *Ideal.*

Buckbee's Prolific Green Nutmeg. Buc. For similar names see *Nutmeg.*

Burpee's Bay View, Burpee's Champion Market, Burpee's Emerald Gem, Burpee's Golden Netted Gem, Burpee's Matchless, Burpee's Melrose, Burpee's Netted Gem. Entered as *Bay View, Champion Market, Emerald Gem, Golden Netted Gem, Matchless, Melrose,* and *Netted Gem.*

California Beauty. J&M Thm. For similar names see *Long Island Beauty.*

California Citron. Dlw *Fld Ger* Lan.

California Large Nutmeg. Cox.

Cannon Ball. Bai Bak Bkt Buc Bur Eic Hde J&S *Shw* Tex Vau.

Similar names. Texas Cannon Ball.

Seedsmen's synonyms. *Cosmopolitan,* Bak Eic. .

Cape May. MWJ Rob *Vl.* For similar names see *Extra Early Cape May.*

Carmes. Hen M&S.

Casaba. Btl Bkt Bel *Bow* Bgg Brk Buc Bui C&J *CE* Cle Col CF Cox Crs *Drr* Evr Ewg Fqr Ger GH Ggy Gry TG Hns Hrv Hst Iml *MWJ* J&M Koe Lam Lan *Lnr* LB Liv JL Mgd Mau JCM JMM Mhl Min JMP Por Ree Rob Rt RP Sal S&R S&F S&O Shm Sim Sox Stk SB Thm Tpk Trm Vin.

Similar names. Improved Casaba, Bell's Improved Casaba, Persian Casaba.

Seedsmen's synonyms. *Green Persian,* Evr Iml Lam LB Ree RP SB. *Large Persian,* Btl JCM. *Long Persian,* Buc Crs. *Persian,* Bkt Bui Lan Mhl Mgd Rt, etc. *Winter Pineapple,* J&M Thm.

Champion. Chl Dlw Ree. For similar names see *Champion Market.*

Champion Market. Bai Brd Ber *Bgg* Bui Bur CE Cle Col CF Cur Drm Elt Fst Fer Frd GH Ggy TG Hrn Hrs *H&C* Hlm Iow J&S Kra *Lnr* Liv JL Man *PM Mau* Pnt Qkr Ren Ree Rob Roc SC Shw S&O Spf *SB* S&H Tat Tem Tex TB Thm Thr Trm Vau Vk Wd WS.

Similar names. Burpee's Champion Market, Champion.

Seedsmen's synonyms. *Starn's Favorite,* Mau J&S.

Chicago Giant. Drm. For similar names see *Chicago Market.*

Chicago Giant Market. Frd *Gra* MWJ Lnr Liv Mls Shw.

Similar names. See *Chicago Market.*

Chicago Market. Bak Brd Bkt Bgs Bri Buc Bui Bur *CE* Cle Crs Cur Ebr Eic *Fld* Frd GH Ggy Grw TG Hrn J&S Kg Kra Lnr May Mzy Neb Ree Rob Roc RP S&O Shm Spf Tex TB Vl Vau Web Wyg.

Similar names. Chicago Nutmeg, Chicago Giant, Chicago Prolific Nutmeg, Chicago Giant Market.

Seedsmen's synonyms. *Nutmeg,* Bui.

Chicago Nutmeg. GH. For similar names see *Chicago Market.*

Chicago Prolific Nutmeg. *Lnr.* For similar names see *Chicago Market.*

Childs' Great Combination. Entered as *Great Combination.*

Christmas. *Eas.*

Christiana. Bai Brd Bkt Brb Cle C&B Col CF Ebr Elt Emr Ewg Gra Kra Mnd Raw Ren Rob Sim *Vl* Vk Wea W&D.

Similar names. See *Orange Christiana.*

Seedsmen's synonyms. *Boston Pet,* Ggy.

Christopher Columbus. Bri Evr. For similar names see *Columbus.*

Cincinnati Market. Lan.

Climbing Orange. Sal.

Similar names. Horny Climbing.

Colorado. Brk *Cam* DD Pne.

Similar names. Giant of Colorado.

Seedsmen's synonyms. *Rocky Ford*, Brk.

Columbia. *CE* Tem. For similar names see *Columbus.*

Columbus. Alr Bkt Bel Buc Bur Col Drr Frd GH Ggy Hlm J&M Kra Lnr Liv Mau May JCM JMM *Pac* Ree Rob Roc S&H T&B Vk.

Similar names. Beck's Columbus, Christopher Columbus, Columbia.

Conqueror of Europe. W&D.

Coral-Fleshed Japan. W&D. For similar names see *White Japan.*

Coral Reef. Brk.

Corning's Albany Market. Entered as *Albany Market.*

Corning's Superb. Pri. For similar names see *Superb.*

Cosmopolitan. Alr Bak Bgg Buc Bur Crs Del Drr Eic RE Fer Frd Gls Hde Hrs Hlm *Kg* Lam *Lnr* LB Mas Mhl NK Ree Rob Roc Rs S&R *Shw* Shm *SB* Tex Thr Vau Vk.

Similar names. Ferry's Cosmopolitan.

Seedsmen's synonyms. *Cannon Ball*, Bak Eic.

Creole. Bui Cle Eic.

Seedsmen's synonyms. *New Orleans Market*, Bui Cle Eic.

Currie's Osage. Entered as *Osage.*

Defender. Ewg *Fqr* Fer *Vau.*

Delmonico. Bai Btl Bel Bgg Bdg Bri Bru Bur Brr Cle CF Crs Cur Del *DD* Elt RE Evr Fmr Fst Ger GH Ggy TG Hns Hop Lnr Mnd Man PM May JCM MV Mzy Prn Ptt Ree Rob Sal *Sox* S&W Tat Til Trm Vau Vin Wea W&D Wdr Y&H.

Similar names. Improved Delmonico, Henderson's Improved Delmonico, Henderson's Perfected Delmonico, Perfected Delmonico.

Diamond Jubilee. *Vau.*

Dickmann's Best. *DD.*

Dominion Day. *SB.*

Dominion Green-Fleshed. Sim.

Similar names. Simmers' Dominion Green-Fleshed.

Earliest of All. Ren. For similar names see *Extra Early.*

Early Baltimore. Bow Por S&R. For similar names see *Baltimore.*

Seedsmen's synonyms. *Acme*, Bow Por S&R.

Early Bristol. Lan.

Early Burlington. Lan.

Early Christiana. Anb Brk Bdg C&J Crs Eas Fqr GH Pot S&F.

Similar names. See *Orange Christiana.*

Early Emerald Gem. Alx. For similar names see *Emerald Gem.*

Early Golden Netted Gem. H&P. For similar names see *Netted Gem.*

Early Grand Rapids. Bri Buc Bur Gls. For similar names see *Grand Rapids.*

Early Grand Rapids Market. Brn Frd H&P Jns Pir Rob.

Similar names. See *Grand Rapids.*

Early Green Citron. CE GH S&O. For similar names see *Green Citron.*

Early Green Nutmeg. *Bgg* Col Hde Hrn Liv JL May Rob Spf.

Similar names. See *Nutmeg.*

Early Hackensack. Ar Bai Brw C&J Cam CE Cox Dlw DD Drm Eic RE Fst Gdn GH Gra Gfg Grw TG Hde Hrn Hrs Hen Iml Iow Jac RHJ J&S Ken K&F Kra Lnr Mnd Mas McK NI Pks Pnt Poo Ren Roc RP Sal Shm Sim Stk SB S&H Thb Trm Wat Web W&D Wyg Y&H.

Similar names. See *Hackensack.*

Seedsmen's synonyms. *Turk's Cap*, RP.

Early Honey Sweet. M&S *Nol.*

Early Jenny Lind. Bel Bow Bdg Bui Brb *Bur* GH Grw TG Hbt J&S M&S Vl.
Similar names. See *Jenny Lind.*

Early Jersey Hackensack. Gls. For similar names see *Hackensack.*

Early June. Mel Vl. For similar names see *Extra Early June.*

Early Matchless. M&S. For similar names see *Matchless.*

Early Netted Gem. Col G&T Hst JMM NK Old Pac Shw.
Similar names. See *Netted Gem.*

Early Nutmeg. Bur Kra Lnr Mau Pac Vau. For similar names see *Nutmeg.*
Seedsmen's synonyms. *Green Citron*, Ggy.

Early Orange Christiana. Bru Vl. For similar names see *Orange Christiana.*

Early Prolific Nutmeg. CE GH. For similar names see *Nutmeg.*

Early Rough. Min.

Early Round Yellow. GH. For similar names see *Large Yellow.*

Early Surprise. TG. For similar names see *Surprise.*

Early White Japan. DD Fer Pnt Stk Tat Wdr.
Similar names. See *White Japan.*

Early Yellow. Bow Sim Tpk. For similar names see *Large Yellow.*

Eichling's New Orleans Market. Entered as *New Orleans Market.*

Emerald Gem. Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Blg Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Bur Brr Brw C&J Cam CE Chl C&B Col CF Cox Crg Crs Cur CA Del D&C Drr Drm Ebe Ebr *Eic* Elt Emr Evr Fmr Fqr Fst Fer Frd Ger Gls Gdn GH Gra Ggy Gry Gfg G&T Grw TG Hns Hrn Hrs Hrv Hen Hbt H&C Hlm Hop Hse H&P Iml Iow Jac J&M J&S *Jns* Ken K&F Kg Kra Lam Lan Lnr LB Liv JL Loh Mnd *Man* Mns Mas Mau May JCM JMM *McK* Mic Mhl Mls MV M&S Neb Nol NI NK OV Pac Pg Pks HP JMP Prn Pnt Ptt Por Pot Pri Qkr Raw Ree Ren Rce Rim Rob Roc Rt Rs RP Sal S&R SC S&F S&B Shw S&O Shm Sie Sim Sox Spf Stk SB Stw S&H S&W Tat Tem Thm Thr Thb *Tlh* Til *Tpk* Trm T&B Vl Vau Vk Vin Wat *Web* W&D Wll Wd Wdr WS Y&H.
Similar names. Burpee's Emerald Gem, Early Emerald Gem, Breck's Improved Emerald Gem.

Evans' Hamilton Market. Entered as *Hamilton Market.*

Excelsior Nutmeg. Bdg. For similar names see *Nutmeg.*

Exquisite. SB.

Extra Early. Koe.
Similar names. Earliest of All, Mills' Earliest, Landreth's Extra Early, Wilson's Extra Early.

Extra Early Cape May. Cam Hde Hst Hlm Koe Lan Mhl Rim Stw.
Similar names. Cape May.

Extra Early Citron. Bak Btl Bou Brn *CE* DD Drm RE Fer *H&C* Lan *Loh* Neb NK HP Pnt Rce Rt Sal Sie Sox Stw Trm.
Similar names. See *Green Citron.*
Seedsmen's synonyms. *Nutmeg*, NK Sal.

Extra Early Giant Prolific. Lnr. For similar names see *Nutmeg.*

Extra Early Grand Rapids. Bur D&H Hlm Mau Neb Roc S&O Shm Tem Vl *Wat Y&H.*
Similar names. See *Grand Rapids.*

Extra Early Grand Rapids Market. Bur Del.
Similar names. See *Grand Rapids.*

Extra Early Green Citron. Cle CF GH Hns Hde Rob *SB* Tex Til.
Similar names. See *Green Citron.*

Extra Early Green Nutmeg. Del Jns. For similar names see *Nutmeg.*

Extra Early Hackensack. Alx Bak Brd Brt Btl Bkt Bel Ber Blg Bow Bgg Brk Bgs Bri Brn Bru Bng Bui *Bur* Brw *CE* Cle C&B Col CF Crg Crs Cur CA Del Drr Dun Elt Evr Fmr Fer Frd Ger GH Gng Gry G&T Hns Hrn Hst Haw Hen Hbt H&C Hlm Hop J&M Jns Kg Lam Lan *LB* Liv Loh Mgd Man *Mns* Mau May

JCM JMM Mic Mhl MV M&S Neb Nol NK OV Old Pac Pg HP Pir Prn Por Pri Pug Qkr *Rtk* Raw Rce Rob Rs S&R SC S&B Shw S&O Sie Sox Spf Stw S&W Tat Tex Thm Thr *Tlh* Til *Tpk* Vl Vau Vk Wat Wea Wer Wll Wd Wdr WS Yng.

SIMILAR NAMES. See *Hackensack*.

Extra Early Hanover. Wd WS.

Extra Early Jenny Lind. Fst *Mns* Shw Sox Tat.

SIMILAR NAMES. See *Jenny Lind*.

Extra Early Jenny Lind. (New Jersey Improved Button Strain.) Bur.

SIMILAR NAMES. See *Jenny Lind*.

Extra Early June. Haw MWJ Koe Lan.

SIMILAR NAMES. Early June.

Extra Early Netted Gem. Sie Sim. For similar names see *Netted Gem*.

SEEDSMEN'S SYNONYMS. *Rocky Ford*, Sim.

Extra Early Nutmeg. Ken Lnr Qkr Vau. For similar names see *Nutmeg*.

Extra Early Orange Christiana. H&P.

SIMILAR NAMES. See *Orange Christiana*.

Extra Early Prize. J&S M&S.

Extra Early Round Netted Gem. Blg.

SIMILAR NAMES. See *Netted Gem*.

Farquhar's Honey Drop, Farquhar's Improved Arlington Nutmeg. Entered as *Honey Drop* and *Arlington Nutmeg*.

Ferry's Cosmopolitan. Entered as *Cosmopolitan*.

Fine-Netted Nutmeg. *CE* Rce Shw. For similar names see *Nutmeg*.

French Cantaloupe. M&S. For similar names see *Large White French*.

French Perfection. Thr. For similar names see *Large White French*, *Perfection*.

Garden Lemon. Buc Chl Col D&H *RE* Fmr Fld GN Iow *Lar* Mau Mls Roe Shw Sim SB *Wer*.

Gem. Kg. For similar names see *Netted Gem*.

SEEDSMEN'S SYNONYMS. *King's Epicure*, Kg.

Germain's Autumn. Ger.

Giant. Alr Bai Bel Bri Cok Del Frd Ggy Hbt Jns Kra Lnr Liv MV Rce Rob RP Sal Shw S&O Shm Sox Thr Vl Vau Web Wer Wyg.

SIMILAR NAMES. Giant of Colorado, Reedland Giant, Shumway's Giant, Thorburn's Giant, Hammond's Mammoth Giant, Western Giant, Northern Giant, Mammoth Giant.

SEEDSMEN'S SYNONYMS. *Giant of Colorado*, J&S.

Giant of Colorado. J&S. For similar names see *Giant* and *Colorado*.

SEEDSMEN'S SYNONYMS. *Giant*, J&S.

Gilbert's Green Flesh. Mnd Thr.

Glass Melon. Wd WS.

Golden Eagle. Bur D&H Frd Hrs NK Pac Shw Tem Vk Yng.

Golden Gem. CE Crg CA Fqr Fst GH Mau Tat.

SIMILAR NAMES. See *Netted Gem*.

SEEDSMEN'S SYNONYMS. *Golden Jenny*, Bui. *Netted Gem*, Bkt CE CA Fst GH. *Rocky Ford*, Bkt.

Golden Jenny. Bui C&B Drr Lan Mhl. For similar names see *Jenny Lind*.

SEEDSMEN'S SYNONYMS. *Golden Gem*, Bui. *Golden Netted Gem*, M&S. *Netted Gem*, C&B Kg J&S.

Golden Mango. M&S. For similar names see *Mango*.

Golden Netted Gem. Alr Ber Bdg Bgs Bri Buc Bui C&J *CJ* Cle CE Cox Las Ggy TG Hlm Hse Mnd Mic MV M&S Mzy Nef *Pac* Pnt Ptt Pot Pri Rce Roe Shm Sox Spf Tem TB Trm T&B *Vl* Vk Wyg.

SIMILAR NAMES. See *Netted Gem*.

SEEDSMEN'S SYNONYMS. *Burpee's Netted Gem*, Rce. *Golden Jenny*, M&S. *Rocky Ford*, C&J Pnt. *Alamo*, Pnt. *Dewey Gem*, Pnt.

Golden Perfection. Bdg. For similar names see *Perfection.*

Golden Triumph. May. For similar names see *Triumph.*

Grand Rapids. Alr Btl Bkt Ber Bru Cle Cur Evr Hns Ham Hrs Hrv *Hlm* Iow J&S Kos Ren Rce Sal Sie *SB* Trm Y&H.

Similar names. Hammond's Grand Rapids, Early Grand Rapids, Extra Early Grand Rapids, Grand Rapids Market, Early Grand Rapids Market, Extra Early Grand Rapids Market.

Grand Rapids Market. Ebe Lnr Vl. For similar names see *Grand Rapids.*

Grand View. Pri.

Similar names. Price & Reed's Grand View.

Granite State. Eas.

Great Combination. Chl.

Similar names. Childs' Great Combination.

Green Citron. Bai Bdg Brr C&J *CE* Cle Cox Crs Cur Drr Eas TG Hrm Hnt K&W Kg Kos Lea Man May MV Nef Pir Rce Wea W&D Wer.

Similar names. Green-Netted Citron, Green-Netted, Improved Citron, Large Green Citron, Landreth's Extra Early Green Citron, Landreth's Early Citron, Extra Early Green Citron, Extra Early Citron, Early Green Citron.

Seedsmen's synonyms. *Early Nutmeg,* Ggy..

Green-Fleshed Osage. Btl Bkt Bgg Buc Bur Brw C&J *CE* CF Cox Frd Hns Hlm Hse J&S Lnr PM M&S Neb JMP Raw Ree Rob Roc S&O Shm Wea Wdr.

Similar names. See *Osage.*

Green-Fleshed Provence. Thr.

Green Gage. M&S.

Green-Netted. Min. For similar names see *Green Citron.*

Green-Netted Citron. Bui Eic Gdn Mhl Shw.

Similar names. See *Green Citron.*

Green Nutmeg. Brd RE Ewg Gra TG Hrm Hrs Iow May JCM JMM MV NI JMP Ren Roc Rs RP Sal Shw Shm Sox Spf Tpk Vin.

Similar names. See *Nutmeg.*

Green Persian. Iml Lam LB Rce RP SB. For similar names see *Persian.*

Seedsmen's synonyms. *Casaba.* Evr Iml Lam Rce RP LB SB.

Grower's Pride. Bri Evr. For similar names see *McCotter's Pride.*

Hackensack. Bak Btl Bou Bow Bgg Brk Bdg Bri Bur *CE* C&B CF Crs Cur D&C Drr Ebe Ebr Elt Emr Ewg Fqr Fax Fer Fld Gdn Ggy Grw TG Hns Hrs Hrv Hen Hlm Hse H&P Iml Jac MWJ Ken *Kg* Kos Kra Lan Lea *Lnr* LB Liv Loh Mnd PM Mns Mau JMM Min Mzy NK Pks Pnt Ptt Pot Ree Rce Rob S&F S&O Stw S&H Tat Thr Til Tpk *Vl* Vau Vin W&D Yng.

Similar names. Large Hackensack, Late Hackensack, Improved Hackensack, Early Hackensack, Henderson's Early Hackensack, Improved Early Hackensack, Early Jersey Hackensack, Extra Early Hackensack, Improved Extra Early Hackensack.

Seedsmen's synonyms. *Turk's Cap,* Bur Fer Lan LB Liv PM, etc.

Hamilton Market. *RE.*

Hammond's Grand Rapids, Hammond's Mammoth Giant. Entered as *Grand Rapids* and *Mammoth Giant.*

Hammond's Superb. Ham. For similar names see *Superb.*

Hardy Ridge. Mau.

Henderson's Banquet, Henderson's Early Hackensack, Henderson's Improved Delmonico, Henderson's Newport, Henderson's Perfected Delmonico, Henderson's Rocky Ford. Entered as *Banquet, Early Hackensack, Improved Delmonico, Newport, Perfected Delmonico,* and *Rocky Ford.*

Hero of Lockinge. W&D.

Holmes' Improved Nutmeg. Entered as *Holmes' Nutmeg.*

Holmes' Nutmeg. Hlm. For similar names see *Nutmeg.*

Honey Drop. Ewg Fqr S&F.

Similar names. Farquhar's Honey Drop.

Hoosier. Evr.

Horned African. Koe.

Similar names. Horny Climbing.

Horny Climbing. Koe. For similar names see *Horned African.*

Hybrid Bay View. Tat Thr. For similar names see *Bay View.*

Ideal. Alr Roc *Shu* Shm Vau.

Similar names. Beck's Ideal, Buckbee's Ideal, Tait's Ideal.

Improved Banana, Improved Casaba, Improved Christiana, Improved Early Hackensack, Improved Early Jenny Lind, Improved Extra Early Hackensack, Improved Golden Netted Gem, Improved Green Nutmeg, Improved Hackensack, Improved Jenny, Improved Jenny Lind, Improved Large Baltimore, Improved Large Green Nutmeg, Improved Large Nutmeg, Improved Baltimore, Improved Large Yellow, Improved Miller's Cream, Improved Montreal, Improved Montreal Market, Improved Netted Gem, Improved Nutmeg, Improved Oblong Netted Gem, Improved Acme, Improved Orange Christiana, Improved Prolific Nutmeg, Improved Surprise. Entered as *Banana*, *Casaba*, *Christiana*, *Early Hackensack*, *Early Jenny Lind*, *Extra Early Hackensack*, etc.

Improved Cantaloupe. Ber Buc Cle DD Ebe Kg Lnr Man JCM JMM NI Roc Tpk Trm.

Seedsmen's synonyms. *Large Nutmeg*, Ebe.

Improved Citron. Hst. For similar names see *Green Citron.*

Improved Delmonico. Hen Pri Shm. For similar names see *Delmonico.*

Improved Yellow. Rob. For similar names see *Large Yellow.*

Invincible Scarlet. Mnd Thr.

Iowa Mastodon. Iow.

Ironclad. Bur Vau.

Similar names. Vaughan's Ironclad.

Irondequoit. Bkt Bgs Drr *Gls* Ggy Hrs Lnr *Loh Ren* Rob Sal Sie SB TB Vk Web.

Similar names. Vick's Irondequoit.

Island Beauty. Ken. For similar names see *Long Island Beauty.*

Ivy Gem. J&S. For similar names see *Netted Gem.*

Jackson First Market. Jns.

Jenny. Lan. For similar names see *Jenny Lind.*

Jenny Lind. Alr Bai Bkt Blg Bgg Bri Bng Buc Cam *CE* Cle C&B CF Cox Crs Cur Dlw DD Drr Eas Elt Emr Evr Ewg Fqr Fer *Fld* Gdn G&T Hde Hrn Hst Hen Hlm MWJ J&S Ken Kg Kra Lam Lan Lnr LB Liv Loh Mnd Mgd Man Mns JCM JMM Mhl Mls Min MV Mzy Nef NK Pg JMP Put Por Pot Raw Ree Ren Rce Rob RP Sal S&R S&O Shm Spf Stw *S&H* S&W Tex TB Thm Thr AGT *Trm* Vau Vk Vin Wat Wea W&D Wd WS Y&H.

Similar names. Improved Jenny, Golden Jenny, Improved Jenny Lind, McCleary's Improved Jenny Lind, Maule's Prize Jenny Lind, Jenny Lind (Button Strain), Extra Early Jenny Lind (New Jersey Improved Button Strain), Extra Early Jenny Lind, Very Early Jenny Lind, Early Jenny Lind, Improved Early Jenny Lind, Prize Jenny Lind.

Jenny Lind (Button Strain). Mzy. For similar names see *Jenny Lind.*

Jersey Belle. Bkt Bel Bru Bur *CE* Cle Crs D&H *Drr* RE Ewg Frd *Gls* Gra Ggy TG Hde Hrn Hse Jer J&S *Lnr* Liv JL MV M&S Neb Pac Ree Rob S&O *Sie* Sim Tem Thr Til Wea Yng.

Similar names. Texas Belle.

Jerusalem Pickle. Liv.

Jewel. Tat.

Similar names. Tait's Jewel.

Johnson & Stokes' Superb. Drm. For similar names see *Superb.*

Khiva. Brt.

Seedsmen's synonyms. *Winter*, Btl.

King's Epicure. Kg.

Seedsmen's synonyms. *Perfect Gem*, Kg.

Kinsman's Queen. Bkt Bur *Drr* Hrs Hlm MWJ J&S Liv JMM Rob Shw.

Kiokee. Alx.

Klondike. Gdn.

Landreth's Early Citron. Vau. For similar names see *Green Citron.*

Landreth's Extra Early. TB. For similar names see *Extra Early.*

Landreth's Extra Early Green Citron. Mic. For similar names see *Green Citron.*

Large Acme. Lan Stw. For similar names see *Acme.*

Large Baltimore. Shw. For similar names see *Baltimore.*

Seedsmen's synonyms. *Improved Baltimore*, Shw.

Large Black Paris. Lan.

Large Green Citron. *MWJ* Ken Wd. For similar names see *Green Citron.*

Large Green Nutmeg. Bow Brn Drm Fer Gdn Haw H&P Lam Lea LB Liv Loh Til Tpk Wd.

Similar names. See *Nutmeg.*

Large Hackensack. Anb Ar Bgg Bgs Brn Bru *Buc* Bui Cle Cox DD Ger J&M J&S *Mus* May JCM *Mic* Neb OV Pac Spf SB *Tpk* Vk Wd Wdr WS.

Similar names. See *Hackensack.*

Seedsmen's synonyms. *Turk's Cap*, Ar Cle Cox J&S WS Wd, etc.

Large Montreal Market. Shm. For similar names see *Montreal.*

Large Netted Cantaloupe. Bai Bow.

Large Nutmeg. Alr DD. For similar names see *Nutmeg.*

Seedsmen's synonyms. *Improved Cantaloupe*, Ebe.

Large Persian. Btl Crs JCM. For similar names see *Persian.*

Seedsmen's synonyms. *Casaba*, Btl Crs JCM.

Large Round Yellow. Dun Hrm K&W. For similar names see *Large Yellow.*

Large White French. Koe Lan.

Similar names. French Perfection, French Cantaloupe.

Large Yellow. Brk Cox Ewg Ger *Gls* GH Hrm Hop K&W Lam Mgd Mas Pac Por Ree Rce S&R S&O SB T&B Vin W&D.

Similar names. Arlington Long Yellow, Improved Large Yellow, Long Yellow, Improved Yellow, Round Yellow, Early Round Yellow, Large Round Yellow, Yellow Cantaloupe, Early Yellow.

Late Hackensack. MV Sox. For similar names see *Hackensack.*

Seedsmen's synonyms. *Turk's Cap*, Sox.

Little Gem. Min. For similar names see *Netted Gem.*

Little Heath. Mnd Thr.

Similar names. Monroe's Little Heath.

Livingston's Market. Anb Frd MWJ Liv JL.

Livingston's Tiptop. Entered as *Tiptop.*

Lone Star. J&S M&S.

Long Green Nutmeg. Jns. For similar names see *Nutmeg.*

Long Island Beauty. Brd Brt Bgg Brk Bdg Bri Bru Bng Bui Bur *CE* C&B CF Crs Ebr Elt Fqr Fax Frd Ggy Gry TG J&S *Lnr* Liv Mau *May* Mzy Neb Nol NK Ree Rob Shw S&O Stk S&W Tat Thr *Tlh Til* Vin W&D WS Y&H.

Similar names. Island Beauty, Netted Beauty, Southern Beauty, California Beauty.

Long Persian. Buc Shm. For similar names see *Persian.*

Seedsmen's synonyms. *Casaba*, Buc.

Long Yellow. Bow Brb *CE* Cle CF Emr Fqr Fer Gra Ggy Gry Grw May MV Mzy Nef HP Rs RP Sal S&F S&O Sox S&W Thr Wer Wll.

Similar names. See *Large Yellow.*

Lord Beaconsfield. Mnd Thr.

McCleary's Improved Jenny Lind. Entered as *Jenny Lind.*

McCotter's Pride. *CE* D&H Fer Gls Gdn Iow Lam *Lur* Pg Rce Vk.

Similar names. Grower's Pride.

McMillan's Netted Gem. Entered as *Netted Gem.*

Malta Winter. Fst. For similar names see *Winter.*

Mammoth Giant. Ham. For similar names see *Giant.*

Mammoth Montreal. Wll. For similar names see *Montreal.*

Mango. Alr Brd Brk Buc Col D&H Drr Elt RE Evr Ewg Fqr Frd Gra GN Ggy Gry Ham Kg Mls MV Pnt Raw Roc Sal S&F Shm Sim *Sox* SB Thr Vin Wer.

Similar names. Boston Mango, Golden Mango.

Seedsmen's synonyms. *Vine Orange,* Frd Thr. *Vine Peach,* Brd Col Cur Elt Ggy Sal, etc. *Vegetable Orange,* Cur Drr Frd Raw Sal Vin. *Vegetable Peach,* Buc Elt Evr RE Pnt Thr, etc.

Matchless. Bur.

Similar names. Early Matchless, Burpee's Matchless.

Matthew's Prize. *Shw.*

Maule's Bay View, Maule's Netted Gem, Maule's Prize Jenny Lind, Maule's Superior. Entered as *Bay View, Netted Gem, Prize Jenny Lind,* and *Superior.*

Maule's Perfection. Cle Mau. For similar names see *Perfection.*

Melon Peach. Btl Koe Kra Mau Neb Pac *Thm* Vau.

Similar names. See *Vine Peach.*

Melrose. Alr Bkt Bel Bng Buc Bur *CF* Cox CA Ebr Frd TG Hrs Hbt Hlm Hop *MWJ* J&S *Kg* Lnr Mgd JMM Neb NK Pri Ree *Ren* Rce Rob Roc S&O Spf Tem Thr Vk Wdr.

Similar names. Burpee's Melrose.

Memphis Market. Shw.

Mexican Banana. Sal. For similar names see *Banana.*

Miller's Cream. Alx Alr Ar Bai Brd Brt Btl Bkt Ber Bow Bgg Brk Bgs Bri Bru Bui Bur Brr C&J *Cam* CE Cle Col CF Cox Crs CA Dlw D&H Del DD Drr Dun Ebe Elt Emr RE Fst Frd Ger Gls Gdn GH Gra Ggy Gry G&T Grw TG Hns Hrn Hrs Hen Hlm Hse Iml J&M J&S Kg Koe Kra Lam Liv Mnd May JCM JMM M&S Mzy Neb OV Pac HP Ptt Poo Por Pot Pri Qkr Raw Ree Ren Rce Rim Rob Rt Rs RP S&R SC S&F Shw S&O Shm Sim Sox Spf SB Tem TB *Tpk* Trm Vk Vin *Wat* Wea W&D Wll Wdr Yng Y&H.

Similar names. Improved Miller's Cream.

Seedsmen's synonyms. *Osage,* Buc Fer NK JMM Raw Wd, etc. *Red-Fleshed Osage,* J&S. *Princess,* Kg S&F.

Mills' Earliest. Mls. For similar names see *Extra Early.*

Milwaukee Market. Cur.

Minnesota Perfection. May. For similar names see *Perfection.*

Missouri. Lan.

Model. Mau *Tlh.*

Monroe's Little Heath. Entered as *Little Heath.*

Montreal. Ar Bow Brk Brn Bru Bui Bur Brr Brw Chl CF Cox Dlw Ebr Emr RE Ewg Fqr Fst Fax *Fld* Ger Gls Gra Ggy Gry TG Hde Hrm Hbt Hlm Hse H&P Iml J&S K&W Ken Lan LB Mau May MV M&S Nol NK OV Old Pg Pir Por Pot Raw Ree Ren Rce S&R S&F Sim Sox SB Stw S&W Tat Thr Til *Tpk* Trm Vin Wat Wea.

Similar names. Improved Montreal, Improved Montreal Market, Large Montreal Market, Montreal Market, Perfection Montreal, Mammoth Montreal.

Seedsmen's synonyms. *Outremont Beauty,* Gra.

Montreal Market. Alx Anb Brd Btl Bgg Bdg Bgs Bri Buc Bui *LB* CE Cle C&B Crg Crs CA D&H Del DD Drr Ebe Elt Evr Ewg Frd Gdn GH Gng Hrn Hrs Hst

Hen Iow Jer J&M Jns Kg Lam Lnr Liv Loh Man May JCM Mhl Mls MV Mzy Neb Pac HP JMP Prn Pnt Pri Ree Rob Roc Rs Sal SC Shw S&O Spf Thm AGT T&B Vl Vau Vk Web W&D Wd Wdr Yng Y&H.

SIMILAR NAMES. See *Montreal.*

Moore & Simon's Perfect Gem. Entered as *Perfect Gem.*

M. & W. Surprise. Entered as *Surprise.*

Neapolitan. *Bgg.*

Netted Beauty. Bel Cle C&B DD Gdn J&S Man MV HP Rob Shw *Sox.*

SIMILAR NAMES. See *Long Island Beauty.*

Netted Gem. Ar Brd *Btl* Bkt Bow Bng Bur Brw CE Cle Cur CA D&H DD Drr Eic Emr RE Evr Fmr Fst Fer Frd Gls Gdn GH Gfg Grw TG Hns Hde Hrn Hrs Hen Hbt H&C Iow *MWJ* J&S *Jns Kg* Kos Kra *Lam* Lan Lnr JL *Loh* Mgd *PM* Mns Mau May JCM McM Mel Mls M&S Neb NI Pg JMP Pir Prn Qkr Raw Ree Ree Rob SC S&B *Sie* Sox S&H Tex Thm *Tlh* Vl Vau Web W&D Wer Wd *Wdr* WS Yng.

SIMILAR NAMES. Burpee's Netted Gem, Maule's Netted Gem, McMillan's Netted Gem, Rocky Ford Netted Gem, Rocky Ford Gem, Silver Netted Gem, Improved Netted Gem, Early Netted Gem, Extra Early Netted Gem, Golden Netted Gem, Burpee's Golden Netted Gem, Skillman's Netted Gem, Wood's Netted Gem, Early Golden Netted Gem, Round Netted Gem, Extra Early Round Netted Gem, Oblong Netted Gem, Improved Oblong Netted Gem, Oval Netted Gem, Golden Gem, Rose Gem, Little Gem, Ivy Gem, Perfected Gem, Moore & Simon's Perfect Gem, Osage Gem, Rocky Ford Gem, Perfect Gem.

SEEDSMEN'S SYNONYMS. *Rocky Ford*, Bur Fld PM Emr Mau Thr, etc. *Paul Rose*, Pac. *Golden Jenny*, C&B J&S Kg. *Golden Gem*, Bkt CE CA Fst GH. *Pineapple*, Ggy.

Netted Nutmeg. Anb Btl Bou Bui Cam Crg Dlw Eic Gdn Hns Jac MWJ J&M Ken Koe Stk Trm Wlt.

SIMILAR NAMES. See *Nutmeg.*

Netted Pineapple. Mhl RP.

SEEDSMEN'S SYNONYMS. *Nutmeg*, Mhl.

Nevers' Warted. Thr.

New Orleans. Cle. For similar names see *New Orleans Market.*

New Orleans Market. Bui Drm Eic Hst Rob Shw Stk Tex.

SIMILAR NAMES. New Orleans.

SEEDSMEN'S SYNONYMS. *Creole*, Bui Cle Eic.

Newport. Buc Bui C&B *Drr* Frd Hen J&S May M&S Nol Pot Rce Rob Roc Sal Shw Sim S&W Tem Thr Wea Yng.

SIMILAR NAMES. Henderson's Newport, Newport Favorite.

Newport Favorite. Fqr. For similar names see *Newport, Bishop's Favorite.*

Nixon. Alx CA Hst MWJ McM Wlt.

Norfolk Button. Bur *Bri D&H Drr* Ggy J&S *Lnr* Mau *M&S Rob.*

Northern Giant. GN. For similar names see *Giant.*

Northrup, King & Co.'s Cream. NK.

Northrup's Yellow-Meated Japan. Entered as *Yellow-Meated Japan.*

Nutmeg. Bai Bak Bui Brb C&B CF Cur *DD* Dun Ebe Elt Emr Fld Grw Hrv Hen Hnt RHJ K&W Mnd Mas Mzy Nol Prn Pnt Ptt *Rtk* RP SC S&F S&W Thr Thb W&D Yng.

SIMILAR NAMES. Large Nutmeg, Improved Large Nutmeg, Large Green Nutmeg, Small Green Nutmeg, Improved Large Green Nutmeg, Long Green Nutmeg, Green Nutmeg, Improved Green Nutmeg, Early Green Nutmeg, Extra Early Green Nutmeg, Prolific Green Nutmeg, Buckbee's Prolific Green Nutmeg, Prolific Nutmeg, Improved Prolific Nutmeg, Early Prolific Nutmeg, Vick's Prolific Nutmeg, Prolific Netted Nutmeg, Extra Early Giant Prolific, Early Nutmeg, Extra

Early Nutmeg, Improved Nutmeg, Holmes' Improved Nutmeg, Holmes' Nutmeg, Excelsior Nutmeg, Netted Nutmeg, Fine-Netted Nutmeg, Sugar Nutmeg.

SEEDSMEN'S SYNONYMS. *Chicago Market*, Bui. *Extra Early Citron*, NK Sal. *Netted Pineapple*, Mhl.

Oblong Netted Gem. Blg Bur Mls Nol S&O Thr.

SIMILAR NAMES. See *Netted Gem.*

Onondaga. *Ebe.*

Orange. Wea.

SIMILAR NAMES. Blenheim Orange, Vegetable Orange, Vine Orange.

Orange Christiana. Bow Bri *CE* Ebe TG Haw JCM MV Mzy Nol Por Pri Rce RP Sal S&R S&O *Sox* Tat Thr Til Web Y&H.

SIMILAR NAMES. Early Orange Christiana, Extra Early Orange Christiana, Improved Orange Christiana, Improved Christiana, Early Christiana, Christiana.

SEEDSMEN'S SYNONYMS. *Boston Pet*, TG.

Ornamental Pomegranate. Bur Col Iow *Lnr* Mls Rob *Sim* Vau.

SIMILAR NAMES. See *Pomegranate.*

SEEDSMEN'S SYNONYMS. *Pocket Melon*, Bur. *Queen Anne's Pocket Melon*, Iow Liv.

Osage. Alx Alr Ar Brd Brt Btl Bkt Ber Bow Bgg Brk Bgs Bri Brn Bru Buc Bui Bur Brr C&J CE Cle Col CF Cox Crs Cur CA Dlw D&H DD Drr Drm Ebe Ebr *Eic* Elt Emr RE Evr Fmr Fqr Fst Fer Frd Ger Gls Gdn GH Gng Ggy G&T Grw TG Hns Hrn Hrs Hrv H&C Hlm Hop H&P Iml Iow *MWJ* J&M Jns Ken Kg Koe Kos Kra Lam Lan Lnr LB Liv JL Loh Mgd Man May JMM Mic Mls Mv Mzy Neb NI NK OV Old Pac Prn Pnt Ptt Por Qkr Raw Ree Rce Rim Rob Roc Rt RP Sal S&R SC Shw Shm *Sie* Sim Sox Stk SB S&H Tat Tem TB *Thm* Thr Til *Tpk* Trm T&B Vl Vau Vk Vin Web Wer Wd Wdr WS Wyg Yng Y&H.

SIMILAR NAMES. Osage Gem, Currie's Osage, Vaughan's Osage, Green-Fleshed Osage, Red-Fleshed Osage, Yellow-Fleshed Osage.

SEEDSMEN'S SYNONYMS. *Hybrid*, S&F. *Improved Miller's Cream*, Buc Fer JMM NK. *Miller's Cream*, Alx Bui Bur Drr Fgr Hen, etc. *Miller's Hybrid*, Hrv. *Princess*, Hrv S&F.

Osage Gem. *Drr Lnr Liv* Mau Vau. For similar names see *Osage, Netted Gem.*

Our Own. Anb.

Oval Netted Gem. Brn Iml Jns Rob Vau. For similar names see *Netted Gem.*

Paris Breakfast. Mhl. For similar names see *American Breakfast.*

Paul Rose. Alx Alr Ar Bak Brd Brt Bkt Ber Blg Bow *Bgg* Brk Bdg Bri Brn Bru Bng Buc Bui Bur Brr Brw C&J Cam CE C&B Col CF Cox Cur CA Dlw D&H DD Drr Drw Ebe Ebr Eic Elt Emr RE Evr Fmr Fqr Fst Fer Fld Frd *Ger* Gls Gdn Gra Gng GN Ggy G&T Grw TG Ham Hrn Hrv Hst Hen H&C Hly Hlm Hse H&P Iml Iow *MWJ* J&S Ken Kg Koe Kos Kra Lam Lan Lnr Liv JL *Loh* Mgd *PM* Mns Mas Mau May *JMM* McK Mic Mhl MV M&S Mzy Neb Nol NK OV Old Pac Pg HP JMP Pne Pnt Ptt Por Pri Qkr Raw Ree Ren Rce Rob Roc Rt Rs Sal S&R SC Shw S&O Shm Sie Sim Sox Spf Stw S&H S&W Tat Tem Tex *TB* Thm Thr *Tlb* Til *Tpk* Trm T&B Vl Vau Vk *Wat* Wea Web W&D Wer Wd Wdr WS Yng Y&H.

SIMILAR NAMES. Vaughan's Paul Rose.

SEEDSMEN'S SYNONYMS. *Improved Netted Gem*, Pac. *Petoskey*, Bui Bur Drr Fer Mau Ptt, etc.

Perfect Gem. M&S. For similar names see *Netted Gem.*

Perfected Delmonico. Alx Brk Buc Bui Bur Cox DD Ewg Fqr Frd Gra Hen Hlm Iow J&S PM Pri Rob Roc Shw Sim Thr Yng.

SIMILAR NAMES. See *Delmonico.*

Perfected Gem. Entered as *Gem.*

Perfection. Brt Bkt *Bgg* Bri *CE* CCo Cur D&H Drr Fst Fld Frd TG Iow Liv Mnd PM Mls Pir Pnt Raw Rce Rob Sal S&O Sox Stw Wdr WS Wyg.

Similar names. French Perfection, Maule's Perfection, Minnesota Perfection, Wood s Perfection, Unsworth's Perfect, Golden Perfection, Yellow-Fleshed Perfection, Sutton's Perfection.

Seedsmen's synonyms. *Princess*, Brt Bkt Frd Mls Pir Wyg, etc.

Perfection Montreal. Bel. For similar names see *Montreal.*

Persian. Bkt Bui TG Mhl Sim Stk Vin.

Similar names. Persian Giant, Persian Monarch, Green Persian, Large Persian, Long Persian, Persian Casaba.

Seedsmen's synonyms. *Casaba*, Bkt Bui Lan Mhl Mgd Rt Sim, etc.

Persian Casaba. Ren. For similar names see *Persian*, *Casaba.*

Persian Giant. M&S. For similar names see *Persian.*

Persian Monarch. J&S Sal. For similar names see *Persian.*

Petoskey. Alx Alr Ar Bui Bur Brr CE Cox Dlw Fqr Fer *Ger* Gng GN Grw TG Ham Hlm Iml J&S Lam *PM* Mns Mau McK MV M&S Old JMP Pnt Ptt *Por* Qkr Rs Sal Shm Sie Sim Sox *TB* Vk Wea Yng.

Seedsmen's synonyms. *Paul Rose*, Bui Bur Drr Fer Lam Mau, etc.

Pineapple. Bri Bui *CE* Cle Crs Dlw Ebe Eic Fer Gdn Hns Hrm Haw Hnt H&P Jac K&W Koe *Lnr* Mnd May Min MV Nef Pac Ren Rce Sal Shw S&O Sox Stk Til Tpk Web Wyg.

Similar names. Netted Pineapple, Rocky Ford Pineapple, Winter Pineapple.

Seedsmen's synonyms. *Netted Gem*, Ggy.

Pocket. Bur.

Pomegranate. Brk MWJ Mzy Sal Shw S&O Thr.

Similar names. Ornamental Pomegranate.

Ponce de Leon. Hst.

Price's American Breakfast. Entered as *American Breakfast.*

Price & Knickerbocker's Surprise. Entered as *Surprise.*

Price & Reed's Grand View. Entered as *Grand View.*

Princess. Alr Brt Btl Bkt Bel Bgg Bri Brn Bru Bur *CE* Chl Cle Cur CA Ebr RE *Fld* Frd TG Hns Hlm Iow J&S Kg Kos Kra Lnr Loh Lon Mnd Man PM May JMM *Mic* Mls MV Neb HP Pir Pnt Pri Ren Rce Rob Roc Sal S&O Shm Sim Sox SB Stw S&H Tlh Til Trm Vk Wer Wdr Wyg Y&H.

Seedsmen's synonyms. *Miller's Cream*, Kg S&F. *Miller's Hybrid*, Hrv. *Osage*, Hrv S&F. *Perfection*, Brt Bkt Bur Cur Frd Wdr, etc.

Prize Jenny Lind. Mau. For similar names see *Jenny Lind.*

Prolific Green Nutmeg. Evr Roc Vl. For similar names see *Nutmeg.*

Prolific Netted Nutmeg. Ar Brk Shw. For similar names see *Nutmeg.*

Prolific Nutmeg. Brk Bgs Bri Buc Bur Cle CA Fst Ger Gls TG Hbt Hlm Kg Mnd Man PM Neb NI Rob Tem Web Wer Wdr.

Similar names. See *Nutmeg.*

Queen Anne Pocket Melon. Liv.

Seedsmen's synonyms. *Ornamental Pomegranate*, Iow Liv.

Queen Anne Sweet-Scented Pocket Melon. Drw.

Queen of All. Sal.

Similar names. Salzer's Queen of All.

Rajah. *D&H.*

Red-Fleshed Lyons. Thr.

Red-Fleshed Osage. *Hlm* J&S. For similar names see *Osage.*

Seedsmen's synonyms. *Miller's Cream*, J&S.

Reedland Giant. MWJ J&S Lan Liv PM Stw. For similar names see *Giant.*

Roberts. Lan.

Rocky Ford. Alr Anb Ar Bak Brd Brt Ber Bou Bow *Bgg* Brk Bdg Bri Brn Bru Buc Bui Bur Brr Brw C&J Cam CE Cle C&B Col CF Cok Cox Cur CA Dlw D&H DD Drr Drm Ebe Ebr Eic Elt Emr RE Evr Fmr Fqr Fax Fer Fld Frd Ger Gls Gdn GH *Gra* GN Ggy Gfg G&T Grw TG Hns Ham Hde Hrn Hrs Hrv Hst Hen H&C Hly Hlm H&P Iml Iow Jac *MWJ* J&M J&S Jns K&W Ken Kg Kos Kra Lam Lan Lnr LB Liv *Lon* Mgd Man *PM* Mau May JCM JMM McM Mel Mic Mhl Mls MV M&S Neb Nol NK Old Pac Pg HP JMP Pir Pnt Ptt Por Pot Pri Qkr Rtk Raw Ree Ren Rce Rim Rob Roc Rt Sal S&R SC Shw S&O Shm Sie Sim Sox Spf *Stk SB* Stw S&H S&W Tat Tem Tex TB Thm Thr *Tll* Til Trm T&B *Vl* Vau Vk Wat Wea W&D Wll Wlt Wdr WS Yng Y&H.

Similar names. Henderson's Rock Ford, Rocky Ford Netted Gem, Rocky Ford Gem.

Seedsmen's synonyms. *Alamo*, Pnt. *Burpee's Netted Gem*, Bur Fld PM. *Colorado*, Brk. *Dewey Gem*, Liv Pnt. *Extra Early Netted Gem*, Sim. *Golden Gem*, Bkt. *Golden Netted Gem*, C&J. *Improved Golden Netted Gem*, Pnt. *Improved Netted Gem*, Emr Thr. *Maule's Netted Gem*, Mau. *Netted Gem*, Bak Bou Cur RE Frd Gls, etc. *Rose Gem*, Liv.

Rocky Ford Gem. Alx Web. For similar names see *Rocky Ford*, *Netted Gem.*

Rocky Ford Netted Gem. OV *Tpk* Wd.

Similar names. See *Rocky Ford*, *Netted Gem.*

Rocky Ford Pineapple. Brt Btl. For similar names see *Pineapple.*

Rose Gem. Bur Lnr Liv JL *Vau.* For similar names see *Netted Gem.*

Seedsmen's synonyms. *Dewey Gem*, Liv. *Rocky Ford*, Liv.

Round Netted Gem. Brk Brn Jns Mls Nol Thr Vau.

Similar names. See *Netted Gem.*

Round Yellow. C&J *CE* CF Gra Grw May Rce Rob RP Sal S&O.

Similar names. See *Large Yellow.*

Royal Favorite. Thr *W&D.* For similar names see *Bishop's Favorite.*

Royal Sovereign. *S&F.*

St. Louis Market. Pne Pnt SC.

Salmon and Green. Lan Mic.

Salzer's Mexican Banana, Salzer's Queen of All. Entered as *Mexican Banana* and *Queen of All.*

Santa Claus. Frd.

Seedsmen's synonyms. *Winter Pineapple*, Frd.

Shipper's Delight. Bri Brw J&S.

Shumway's Giant, Shumway's Silver Netted. Entered as *Giant* and *Silver Netted.*

Silver Netted. Alr Sal Shm.

Similar names. Shumway's Silver Netted, Silver Netted Gem.

Silver Netted Gem. Buc Roc. For similar names see *Silver Netted*, *Netted Gem.*

Simmers' Dominion Green-Fleshed. Entered as *Dominion Green-Fleshed.*

Skillman's Early. Bru. For similar names see *Skillman's Netted.*

Skillman's Fine-Netted. Cle CF Fqr Ger Ggy TG H&P Lea JL Sim Tpk Trm.

Similar names. See *Skillman's Netted.*

Skillman's Netted. Anb Bkt Bui Brr C&J CE Cox Cur Emr Ewg GH Kg Lnr Mnd Mas JCM MV Pac Por Ren Rce Rob RP Sal S&R *Sox* SB TB Web W&D Wd WS.

Similar names. Skillman's Netted Gem, Skillman's Fine Netted, Skillman's Early.

Skillman's Netted Gem. *Bgg* May S&O.

Similar names. See *Skillman's Netted*, *Netted Gem.*

Small Green Nutmeg. Ber Bow Fer Iml Lam LB Loh Por S&R SB.

Similar names. See *Nutmeg.*

Southern Beauty. Gfg G&T Hst MWJ Tex.

Similar names. See *Long Island Beauty.*

South Jersey. Lan.

Starn's Favorite. Mau. For similar names see *Bishop's Favorite.*

Seedsmen's synonyms. *Champion Market,* J&S Mau.

Strawberry. Brd Buc *CE* Chl Col D&H J&S Liv Mau Mls Pac Ree Roc Sal.

Similar names: Beck's Strawberry.

Sugar Nutmeg. GN. For similar names see *Nutmeg.*

Superb. J&S PM.

Similar names. Corning's Superb, Hammond's Superb, Johnson & Stokes' Superb, Sutton's Superb.

Superior. Bur CF Frd GH Hlm J&S PM Mau Ree Rob Shw Wdr.

Similar names. Maule's Superior.

Surprise. Bai Brd Brt Btl Bkt Bou Bow Bgg Brk Bdg Bri Brn Bur *CE* Cle Cox Crs Cur Ebe Ebr Emr Ewg Fqr Fst Fer Gls Ggy Gry Grw Hrm Hrv Haw Hop K&W *Kg* Kos Lam Lan Lnr *LB* Liv JL Mnd May Min MV Mzy Nef Prn Ptt Poo Pri Raw Ree Rob Roc Rs RP Sal S&F S&O Sie Sim Sox SB Stw TB Thr Vk Wea Web W&D Wdr Y&H.

Similar names. Improved Surprise, Early Surprise, M. & W. Surprise, Price & Knickerbocker's Surprise.

Sutton's A 1. *S&F.*

Sutton's Invincible. *S&F.*

Sutton's Perfection. *S&F.* For similar names see *Perfection.*

Sutton's Scarlet. *Mhl.*

Sutton's Scarlet Masterpiece. S&F.

Sutton's Superb. *S&F.* For similar names see *Superb.*

Sutton's Triumph. *S&F.* For similar names see *Triumph.*

Sweet Home. *D&H* J&S *Lnr* Vau.

Syracuse. *Vau.*

Tait's Acme, Tait's Jenny Lind, Tait's Jewel. Entered as *Acme, Jenny Lind,* and *Jewel.*

Tait's Ideal. Tat. For similar names see *Ideal.*

Texas Belle. Hst. For similar names see *Jersey Belle.*

Texas Cannon Ball. Hst Hly May Rob *Stk Thr.*

Similar names. See *Cannon Ball.*

Theropial. Koe.

Thorburn's Giant. Entered as *Giant.*

Tiptop. Alr *Ans* Ar Brd Brt Bkt Ber Blg Brk Bri Buc Bur *CE* Col Crs Cur Dlw D&H DD Ebe Ebr Frd Gdn *H&C* Hlm Hop H&P Iml Iow MWJ J&S Kos Kra Lnr JL Lon Mgd Mau May *JCM* JMM Mhl M&S Mzy Neb NK HP Pnt Ptt Pot Raw Ree Rob Roc Sal S&B Shw S&O Shm Sim SB S&H S&W Tem Thr Til Vl Vau Vk Web W&D Wer Wyg Yng.

Similar names. Livingston's Tiptop.

Togoodo Spanish Winter. J&S. For similar names see *Winter.*

Toledo Early Market. HP.

Trevoux Orange-Fleshed. Thr.

Triumph. Buc Bur Gry Lnr Ren Rob Roc Sal Shw.

Similar names. Triumph Hybrid, Beck's Triumph, Golden Triumph, Sutton's Triumph.

Triumph Hybrid. May. For similar names see *Triumph.*

Turk's Cap. Ar Bri Bui Bur *CE* Cle Cox Fer Gdn Grw TG Hlm Iml Jac J&S Ken Lan LB PM *Mns* Sox Stw Til Vk Wd WS.

Seedsmen's synonyms. *Early Hackensack,* RP. *Hackensack,* Bur Fer Lan Liv LB PM, etc. *Large Hackensack,* Ar Bui Cox J&S Vk Wd, etc. *Late Hackensack,* Sox.

Unsworth's Perfect. Bru. For similar names see *Perfection.*

Vandalia. Bgg.

Vaughan's Ironclad, Vaughan's Osage, Vaughan's Paul Rose. Entered as *Ironclad, Osage,* and *Paul Rose.*

Vegetable Orange. Alr Drr Ham Raw Rob Shm Vk.

Similar names. See *Orange.*

Seedsmen's synonyms. *Mango,* Drr Frd Raw Sal Vin. *Vine Peach,* Cur Frd Rob Sal.

Vegetable Peach. Buc Cok D&H RE Evr Ewg GN J&S Pnt Roe Sim Trm.

Similar names. See *Vine Peach.*

Seedsmen's synonyms. *Mango,* Buc Elt Evr RE J&S Thr, etc. *Vine Orange,* Elt Frd Thr. *Vine Peach,* Ham Sim SB.

Vegetable Vine Peach. Wer.

Very Early Jenny Lind. Qkr. For similar names see *Jenny Lind.*

Vick's Irondequoit. Entered as *Irondequoit.*

Vick's Prolific Nutmeg. Brb *CE* Ree Vk. For similar names see *Nutmeg.*

Vine Orange. Elt *Kg* MV *Sox* Thr. For similar names see *Orange.*

Vine Orange Vegetable Peach. Shw.

Vine Peach. Alr Chl Col Cur Fmr Ggy Ham Iow Koe *Lur* Mls M&S Pac Rob Sal Shm Sim *Thm* Thr.

Similar names. Vegetable Peach, Melon Peach.

Seedsmen's synonyms. *Mango,* Brd Col Cur Elt Ggy Sal Sim etc. *Vegetable Orange,* Cur Rob Sal. *Vegetable Peach,* Elt Ham Sim SB.

Waldorf. Bui.

Ward's Nectar. Bgg *CE* Fqr Ggy Rce Thr W&D.

Washington Market. Bui Cle Gdn Jac Pir.

Western Giant. Buc Roe. For similar names see *Giant.*

White Japan. Brt Brk Buc *CE* Cle CF Cur Emr Fqr Gry Hrs J&S Kg *Lur* Mas May MV Mzy Pot Raw Ren Rce Rob Roc RP Sal S&F S&O Shm Sox Thr Tpk Web.

Similar names. Black Jap, Early White Japan, Coral-Fleshed Japan, Yellow-Meated Japan, Northrup's Yellow-Meated Japan.

Wilson's Extra Early. Ber Sox. For similar names see *Extra Early.*

Winter. Bri.

Similar names. Malta Winter, Togoodo Spanish Winter.

Seedsmen's synonyms. *Khira,* Btl.

Winter Pineapple. Alx Buc Chl Col Cur CA Frd *Ger* Hst Iow J&M Liv JL May Mzy Ree Rce Thm Thr Wer.

Similar names. See *Pineapple.*

Seedsmen's synonyms. *Casaba,* J&M Thm. *Santa Claus,* Frd.

Wood's Netted Gem. Entered as *Netted Gem.*

Wood's Perfection. Wd. For similar names see *Perfection.*

Yellow Cantaloupe. Web. For similar names see *Large Yellow.*

Yellow-Fleshed Japan. May NK Vau.

Yellow-Fleshed Osage. M&S *Nol.* For similar names see *Osage.*

Yellow-Fleshed Perfection. Gdn. For similar names see *Perfection.*

MUSTARD.

Black. Anb Ar Brd *Btl* Bou *Bgg* Brk Bdg Bgs Buc Brb Bur CE Cle C&B CA Drm Ebr Emr Fmr Fst Frd Ger GH TG Ham Hde Hrm Hrv Hen Hlm Hnt J&S K&W Kg Lnr Liv JL Man Mau May McM Mel Mls MV Mzy Neb Nef NI OV *Pac* Pir

Pnt Ptt Pri Raw Ree Rce Roc SC Shw Shm Sox Spf S&W Tat Tex Thm Thr Til *Tpk* Trm T&B V7 Wea W&D Wer Wd WS.

Similar names Black London.

Seedsmen's synonyms. *Brown*, Brd Bur Frd Ger Hen J&S, etc.

Black London. Bui *Kg Shw.*

Similar names. Black, Brown London, White London, Yellow London.

Seedsmen's synonyms. *Brown London*, Bui.

Bloomsdale Large-Leaved. MWJ Lan.

Brown. Alx Anb Ar Brd Btl *Bel* Bou Bgg Brk Bdg Bgs Brb Bur C&J CE Cle C&B CF Cur CA Del Drm Ebe RE Fmr Fqr Fst Frd Ger GH Gry Hns Hde Hrm Hrv Hen Hlm J&S Jns K&W Ken K&F Kg Kos Liv J L May JCM Neb OV Pac Pir Pnt Ptt Poo Pot Pri Raw Ree Rce Roc Rs RP SC S&F Shw Sim Sox Spf Stw S&W Tat Tex Thm Til *Tpk* Trm V7 Vau Wea W&D Wer Wyg Yng.

Similar names. Brown English, Brown Italian, Brown London.

Seedsmen's synonyms. *Black*, Brd Bur Frd Ger Hen J&S, etc.

Brown English. Kei.

Similar names. Brown, Brown Italian, Brown London, White English, English.

Brown Italian. Min. For similar names see *Brown.*

Brown London. Bui Gdn *Shw.* For similar names see *Brown.*

Seedsmen's synonyms. *Black London*, Bui.

Chinese. Alx Brk Bdg Buc Bui Bur Cam *CE* C&B Crg Del D&C Drr Eic *RE* Evr Ewg Fmr Fst Frd Ger Gdn GH GN Ggy Gry Grw *Hrn* Hst Hen J&S Kra Liv Mau JMM M&S Pir Ptt Raw Ren Rce Roc Sal S&F Shm Sim SB S&W Tat Thm Vau W&D.

Similar names. Chinese Curled, Chinese Southern Curled, Chinese Broad-Leaved, Chinese Golden, Chinese Giant, Chinese Mammoth, Chinese Very Large Cabbage-Leaved, Chinese Large-Leaved.

Seedsmen's synonyms. *Giant Southern Curled*, Evr Lnr Pir Vau.

Chinese Broad-Leaved. Mdg Thr. For similar names see *Chinese.*

Chinese Curled. DD Fld *Gra* Hrn Neb Pnt Qkr Spf Web.

Similar names. See *Chinese.*

Seedsmen's synonyms. *Giant*, Neb. *Southern Curled*, Spf.

Chinese Giant. Alr Col. For similar names see *Chinese.*

Chinese Golden. Iow. For similar names see *Chinese.*

Chinese Large-Leaved. *Eic.* For similar names see *Chinese.*

Chinese Mammoth. Shw. For similar names see *Chinese.*

Chinese Southern Curled. Hly. For similar names see *Chinese, Southern Curled.*

Chinese Very Large Cabbage-Leaved. Stk. For similar names see *Chinese.*

Creole. Alx Hly Lan Shw.

Similar names. Southern Creole, Southern Creole Curled.

Seedsmen's synonyms. *Giant Southern Curled*, Alx.

Curled. Ar.

Similar names. Giant Curled, Mammoth Curled, Large Curled, Silver Curled.

Seedsmen's synonyms. *Giant Ruffled*, Ar.

English. Alx CF Crs *RHJ* Mgd.

Similar names. White English, Brown English.

Seedsmen's synonyms. *White*, Alx Crs.

Fordhook Fancy. Bur.

Georgia. CA.

Seedsmen's synonyms. *Mammoth Curled*, CA.

Giant Curled. Bai Btl DD G&T Neb. For similar names see *Curled.*

Seedsmen's synonyms. *Chinese Curled*, Neb.

Giant Ruffled. Ar.

Seedsmen's synonyms. *Curled*, Ar.

Giant Southern. Hop Sal. For similar names see *Southern Curled.*

Giant Southern Curled. Alx Bak Blg Bou Bow Bgs Bur Cam CE Cle C&B Cox Crg Crs Del Drm Eic Elt Evr *Fmr* Fer GH *Gra* Gfg Hns Hde Hst Hen H&C Hlm Iow MWJ J&S Lam Lan LB Liv JL Loh Mnd Mgd Man *Mau* McM MV Mrs Pir Pnt Por Ree Roc S&R SC Shw *Sox* S&W Tat Tex Thm Thr Trm *Vl* Vau Vk Wlt Wd WS.

Similar names. See *Southern Curled.*

Seedsmen's synonyms. *Chinese*, Evr Lnr Pir Vau. *Creole*, Alx.

Golden. Neb.

Large Curled. Stk. For similar names see *Curled.*

London. Hop.

Similar names. Black London, Brown London, White London, Yellow London.

Mammoth Curled. CA Gdn Jac. For similar names see *Curled.*

Seedsmen's synonyms. *Georgia*, CA.

Mammoth Ostrich Plume. Bui. For similar names see *Ostrich Plume.*

Mammoth Southern Curled. Bui Grw. For similar names see *Southern Curled.*

Ostrich Plume. Cam *Iow MWJ Mgd May Vk* Wlt Wd.

Similar names. Mammoth Ostrich Plume.

Silver Curled. *CE* Ree. For similar names see *Curled.*

Smooth-Leaved. Web.

Southern Creole. Bui. For similar names see *Southern Curled, Creole.*

Southern Creole Curled. Gdn. For similar names see *Southern Curled, Creole.*

Southern Curled. DD *Eic* Iow J&M May Spf.

Similar names. Mammoth Southern Curled, Giant Southern Curled, Giant Southern, Chinese Southern Curled, Southern Creole Curled.

Seedsmen's synonyms. *Chinese Curled*, Spf.

White. Alx Anb Ar Bai Brd Btl Bel Bgg Bdg Bru Buc Bur Cle Col CF Crg Crs Ebe Eic Elt RE Evr Ewg Fmr Fqr Fst Fax Frd Gls Gra Gng Ggy Gry Grw Hns Ham Hde Hrn Hst Hbt H&C Hly Hnt MWJ RHJ J&M Jns Ken K&F Kg Lnr Mgd Man Mau May JCM McM Mel Mhl Mls Nef Nol NI OV Pac Pot Qkr Raw Ree Ren Roc Rs S&F Shw Shm Sim SB Stw S&H Tex Thm *Tpk* T&B Vau Vk Vin Wd WS Wyg Yng.

Similar names. White American, White English, White London.

Seedsmen's synonyms. *English*, Alx Crs. *Yellow*, Bai Bdg Col Elt RE S&F, etc.

White American. Mnd. For similar names see *White.*

White English. *Btl* Bow Bgs Brr C&J DD Drm Ebr Fer Fle Haw Iow RHJ *Kei* Lam *Lnr* LB Liv JL Loh JMM Min Pks Pir Por RP S&R Til Tpk Trm Wer.

Similar names. See *White.*

Seedsmen's synonyms. *White London*, Iow. *Yellow California*, Bow.

White London. Alr Bou Brk Bui Brb Cam CE C&B Cur CA Dlw D&H Drr Dun Emr Ger Gdn GH TG Hde Hrm Hrs Hrv Hen Hlm Iow J&S K&W *Kg* Kos Mnd Mas MV M&S Mzy Neb Prn Pnt Ptt Poo Pri Pug Ree SC *Shw* Sox S&W Tat TB Thr *Vl* Wea W&D Wdr.

Similar names. See *White, London.*

Seedsmen's synonyms. *White English*, Iow. *Yellow London*, Bui Gdn Neb Pnt.

Yellow. Bai Bdg Col Eic Elt RE Fax Ggy K&F May Mhl Nol OV *Pac* Raw S&F Spf *Tpk* T&B.

Similar names. Yellow California, Yellow London.

Seedsmen's synonyms. *White*, Bai Bdg Elt RE Ggy K&F, etc.

Yellow California. Bow. For similar names see *Yellow.*

SEEDSMEN'S SYNONYMS. *White English*, Bow.

Yellow London. Bui Gdn Neb Pnt.

SIMILAR NAMES. Yellow, Yellow California. See also *London.*

SEEDSMEN'S SYNONYMS. *White London*, Bui Gdn Neb Pnt.

OKRA.

(**Also called Gumbo.**)

Buist's Dwarf. Bui. For similar names see *Dwarf.*

Creole. Mhl S&F.

SIMILAR NAMES. White Creole.

SEEDSMEN'S SYNONYMS. *White Velvet*, S&F.

Density. Bng Frd Hlm J&S *Lnr* Mns Nol Ptt *Vl* Wd WS.

SIMILAR NAMES. White Density.

SEEDSMEN'S SYNONYMS. *Dwarf Green Prolific*, Ptt. *Dwarf Prolific*, Frd Hlm. *Dwarf White*, Hrs. *Improved Dwarf Green Prolific*, J&S Mns. *Improved Dwarf Prolific*, Bng Wd WS.

Dreer's Little Gem. Entered as *Little Gem.*

Dwarf. Anb Ar Brd Brt Btl Bkt Bow Bri CA DD Fst Hns Hnt Lea Lnr McM *Pac* Pri Tat TB T&B Vau Yng Y&H.

SIMILAR NAMES. Improved Dwarf, Buist's Dwarf, Early Dwarf, Extra Early Dwarf, Dwarf White, Early Dwarf White, Improved Dwarf White, Dwarf Green, Early Dwarf Green, Improved Dwarf Green.

Dwarf Green. Alx Alr Bgg Brk Bru C&B CF Cur Del Emr Fmr Fqr Fax GH Gry TG Hde Hrm *Hrn* Hrv Hst Hen K&W K&F Mnd *Mgd* Mau May JCM JMM Mhl MV M&S Mzy OV Pac Pir Prn *Pnt* Por Pot Pug Raw Ree Roc S&R SC S&F Sim *Sox* Stw S&W Tex Thm Tpk Vk Wat *Wea* W&D Wer WH.

SIMILAR NAMES. See *Dwarf.*

Dwarf Prolific. Bng Bur CE C&B Crg Frd GH G&T Hen Hbt Hlm *Lnr* Mnd HP *Vl* Vin *Wat* Wd WS.

SIMILAR NAMES. Improved Dwarf Prolific, Green Dwarf Prolific, Improved Green Dwarf Prolific, Holt's Stringless Early Green Dwarf Prolific, French Market Dwarf Prolific.

SEEDSMEN'S SYNONYMS. *Density*, Frd Hlm Bng Wd WS. *Early Dwarf Green*, Bdg.

Dwarf White. Bou Cle Crs Ebe Ebr Fer GH Grw TG H&C MWJ Kos LB Min Mzy Nef *S&W* Trm Wea.

SIMILAR NAMES. See *Dwarf.*

SEEDSMEN'S SYNONYMS. *Density*, Hrs.

Dwarf White Velvet. *Ber* Bdg Cam Crs DD Gdn Grw TG Iow Jac.

SIMILAR NAMES. See *White Velvet.*

Early Dwarf. Drm Eic Ger Ggy MV Sal Sox. For similar names see *Dwarf.*

Early Dwarf Green. Bdg Shw. For similar names see *Dwarf.*

SEEDSMEN'S SYNONYMS. *Improved Dwarf Prolific*, Bdg.

Early Dwarf White. *CE* Ree Roc. For similar names see *Dwarf.*

Extra Early Dwarf. *CE* Ree. For similar names see *Dwarf.*

Extra Long Green. Bdg. For similar names see *Long Green.*

French Market Dwarf Prolific. *Eic* Stk. For similar names see *Dwarf Prolific.*

Green Dwarf Prolific. *Alx* Blg Cam Gdn Jac J&S Kg Mns Nol Ptt Stk Thr Wit.

SIMILAR NAMES. See *Dwarf Prolific.*

SEEDSMEN'S SYNONYMS. *Density*, Ptt J&S Mns.

Green Dwarf Prolific Extra Early. *Eic.*

Griffing's Long Green. Entered as *Long Green.*

Holt's Stringless Early Green Dwarf Prolific. M&S.

Similar names. See *Dwarf Prolific.*

Improved Dwarf, Improved Dwarf Green, Improved Dwarf Prolific, Improved Green Dwarf Prolific, Improved Dwarf White, Improved Long Green, Improved White, Improved White Velvet. Entered as *Dwarf, Dwarf Green, Dwarf Prolific, Green Dwarf Prolific,* etc.

Lady Finger. Buc Bur *CE* Del Frd GH Hde Hlm Hse J&S *Lnr* Mgd Mau Pnt Qkr Ree Roc *Vl.*

Landreth's Long Green, Landreth's Long White. Entered as *Long Green* and *Long White.*

Little Gem. Drr.

Similar names. Dreer's Little Gem.

Long Green. Alx Alr *Bcr* Bou Bgg Bui Cam CE Cle C&B Cox Cur CA Drr Elt RE Ewg Fmr Ger Gdn GH Gra Ggy Gfg Grw TG Hde Hen Hly Jac MWJ Kei Ken Koe Lan Lea Mau MV Mzy Neb Pri Ren Ree Roc Sal SC Shw Sox Spf S&W Tat Tex Thr Trm Vk W&D Wlt Yng.

Similar names. Extra Long Green, Improved Long Green, Pale Long Green, Griffing's Long Green, Landreth's Long Green.

Seedsmen's synonyms. *Long White,* Neb SC. *Mammoth Long Pod,* Spf. *Tall,* Gdn Hly Jac. *Tall Green,* Bui.

Long White. Ar *CE* Lan M&S Neb Pac Ree Roc. For similar names see *White.*

Seedsmen's synonyms. *Long Green,* Neb SC.

Mammoth Green Pod. Mgd. For similar names see *Perkins' Mammoth Long.*

Mammoth Long. Spf. For similar names see *Perkins' Mammoth Long.*

Seedsmen's synonyms. *Long Green,* Spf.

New South. Lan.

Pale Long Green. Sim. For similar names see *Long Green.*

Perfection White. Shw. For similar names see *White.*

Perfection White Velvet. *Shw.*

Perkins' Mammoth Green Pod. *Alr* Bui Bur *Man.*

Similar names. See *Perkins' Mammoth Long.*

Perkins' Mammoth Long. Crs Fer Hst J&S Lam M&S Nol Pnt *Thr Vk* Wea Wd.

Similar names. Perkins' Mammoth Green Pod, Mammoth Green Pod, Mammoth Long.

Round White. Thr. For similar names see *White.*

Tall. Btl Bng Bui *CE* Crg DD Eic Fst Gdn Hns Hly Jac Lan Lnr Ree Roc Shw Thm Vau WS Y&H.

Similar names. Tall Green, Tall White, Tall White Velvet.

Seedsmen's synonyms. *Long Green,* Gdn Hly Jac.

Tall Green. Brk CF *Eic* Elt Emr Fqr *Lnr* May McM OV Pac Stk *Tpk Wea* Wd.

Similar names. See *Tall.*

Seedsmen's synonyms. *Long Green,* Bui.

Tall White. Cle GH TG Min NI Pug. For similar names see *Tall.*

Tall White Velvet. Gdn Jac. For similar names see *White Velvet.*

White. Hly MWJ RP SC.

Similar names. Improved White, Perfection White, Round White, Long White, Landreth's Long White.

White Creole. Drr.

Seedsmen's synonyms. *White Velvet,* Drr Evr Vk.

White Density. Ebr. For similar names see *Density.*

White Velvet. Alx Alr Bak Brd Brt Btl Bkt Bel Blg Bou Bow *Bgg* Brk Bri Bng Bui Bur Brr C&J CE Cle C&B CCo CF Cok Cox Crg CA Del Drw Drm Eic Evr Fmr Fqr Fst Fer Frd Ger Gls GH Ggy Gry Gfg G&T Hns Hde Hrm Hrn Hrs

Hrv Hst Hen Hbt Hly Hlm Hop Iml J&M J&S Ken Kg Kos Kra Lam Lan Lnr LB Liv Mnd Man Mns Mas Mau May JCM JMM McM Mhl Nef OV *Pac* Pg Pir Prn Pnt Ptt Poo Por Pri Qkr Raw Ree Rce Roc S&R SC S&F Spf Stk Stw S&H S&W Tat *Tem* Tex Thm Thr Til *Tpk* Trm T&B *Vl* Vau Vk Vin *Wea* W&D Wlt Wd WS Yng.

SIMILAR NAMES. Improved White Velvet, Dwarf White Velvet, Tall White Velvet.

SEEDSMEN'S SYNONYMS. *Creole*, Mhl S&F. *White Creole*, Drr Evr Vk.

ONION.

Adriatic Barletta. C&B Fqr Jns Mnd Mas Mzy HP Por S&F SB S&W Vin Wea W&D.

SIMILAR NAMES. White Adriatic, White Adriatic Barletta, Small White Barletta, Extra Early White Barletta, Early White Barletta, Hammond's White Barletta, White Barletta, Barletta Pickling, Extra Early Barletta, Early Barletta, Barletta.

Alneer's Large Red Wethersfield, Alneer's White Pickling, Alneer's Yellow Globe Danvers. Entered as *Large Red Wethersfield*, *White Pickling*, and *Yellow Globe Danvers*.

American Silverskin. Bow Dun Lam LB May NK OV AGT Vau Vk Wyg.

SIMILAR NAMES. See *Silverskin*.

SEEDSMEN'S SYNONYMS. *White Portugal*, Bow Fer Lam NK Vau Vk, etc.

Archias' Improved Extra Early Red. Entered as *Extra Early Red*.

Aroostook Extra Early Flat Red. Jer. For similar names see *Extra Early Red*.

Australian Brown. Agn Alx Alr *Ar* *Bak* Brd Btl Bkt Bel *Ber* Bow Bri Brn Bru Bng Buc Bui Bur C&J *CE* CF Cox *Crs* Cur Dlw D&H Drr Drm Ebe Elt RE *Err* Ewg Fmr *Fid* Frd *Ger* *Gls* GH Gra *G&T* Hns Ham Hde Hrn *Hrs* Hst Hbt H&C *Hly* H&P Iow Jer *MWJ* RHJ J&M J&S Jns *Kg* Kra Lam *Lnr* LB Liv JL *Lon* Mgd Mns Mau May *JCM* *JMM* McK *Mic* Mls MV M&S Mrs Mzy Neb OV Old Pac Pg Pks *Pir* Pnt Ptt Por Ree Ren Rce Roh RP Sal S&R Shw *S&O* Sie Sim Sox Spf S&H S&W Tex Thr AGT *Tlh* *Tpk* Trm T&B Vau Vk W&D Wlt Wd *Wdr* Y&H.

SIMILAR NAMES. Extra Early Australian Brown, Australian Brown Globe, Australian Early Golden Globe, Extra Early Australian Yellow Globe.

Australian Brown Globe. J&M *Vau*. For similar names see *Australian Brown*.

Australian Early Golden Globe. *Cox*. For similar names see *Australian Brown*.

Barletta. Bkt CE Chl Cle Ger Ggy Gry Grw Hbt Mzy Pir Prn Pne S&O Vk Yng.

SIMILAR NAMES. See *Adriatic Barletta*.

SEEDSMEN'S SYNONYMS. *Early Radish*, Chl. *Extra Early Pearl*, Ger.

Barletta Pickling. Pks Sox. For similar names see *Adriatic Barletta*.

Barnard's Yellow Globe Danvers. Entered as *Yellow Globe Danvers*.

Beaulieu's Hardy Winter White. Entered as *Hardy Winter White*.

Bell's Extra Early Red, Bell's Rapid White Pickling. Entered as *Extra Early Red* and *Rapid White Pickling*.

Bloomsdale Danvers, Bloomsdale Early Danvers, Bloomsdale Early Red, Bloomsdale Early White Pearl, Bloomsdale Extra Early Dark-Red, Bloomsdale Extra Early Red, Bloomsdale Extra Early White Pearl, Bloomsdale Large Yellow Strasburg, Bloomsdale Silverskin. Entered as *Danvers*, *Early Danvers*, *Early Red*, *Early White Pearl*, *Extra Early Dark Red*, *Extra Early Red*, etc.

Bloomsdale Extra Early Gold Seal. Lan.

SIMILAR NAMES. See *Bloomsdale Gold Seal*.

Bloomsdale Extra Early Red Seal. Lan. For similar names see *Extra Early Red*.

Bloomsdale Gold Seal. Bri.

Similar names. Bloomsdale Extra Early Gold Seal, Extra Early Gold.

Bloomsdale White. Lan.

Seedsmen's synomyns. *Bloomsdale Silverskin*, Lan.

Bloomsdale Yellow. Dlw. For similar names see *Giant Yellow.*

Bolton. Mrs.

Similar names. Brownish Pink Bolton.

Breck's Yellow Globe Danvers. Entered as *Yellow Globe Danvers.*

Bronze King. GH. For similar names see *Copper King.*

Brown Beauty. Liv.

Similar names. Livingston's Brown Beauty.

Brownish Pink Bolton. Thr. For similar names see *Bolton.*

Brown Wonder. *Mls.*

Buckbee's Extra Early Combination, Buckbee's Golden Globe Danvers, Buckbee's Mammoth Silver King, Buckbee's Red Giant, Buckbee's Red Wethersfield, Buckbee's Round Yellow Danvers, Buckbee's Wampum. Entered as *Extra Early Combination, Golden Globe Danvers, Mammoth Silver King, Red Giant, Red Wethersfield*, etc.

Buist's Yellow Globe Danvers. Entered as *Yellow Globe Danvers.*

Button. Brk Bdg.

California Early Red. Ebe Mrs.

California Early White Globe. Hly. For similar names see *White Globe.*

Campbell's White Dutch Winter. Entered as *White Dutch Winter.*

Canary Island. Iow.

Seedsmen's synonyms. *Bermuda*, Iow.

Challenge Yellow Globe Danvers. *Bgg.* For similar names see *Danvers.*

Chicago High Yellow Globe. *Brd.* For similar names see *Southport Yellow Globe.*

Chicago Silverskin. GH. For similar names see *Silverskin.*

Colorado Yellow Danvers. Hns. For similar names see *Yellow Danvers.*

Copper King. *CE* Col DD Iow Kg *Lnr* Ree Shm Spf Vin Wd WS.

Similar names. Mammoth Copper King, Bronze King. See also *Silver King, Spanish King.*

Seedsmen's synonyms. *Mammoth Pompeii*, Col DD Iow Liv Spf. *Mammoth Red Pompeii*, Bgs Ree. *Red Garganus*, Liv.

Covent Garden White Pickling. Kei. For similar names see *White Pickling.*

Creole. Alx Bou Cam *Eic* Hde Hst Roc Shw Stk Tex Thm *Wd.*

Similar names. Thompson's Creole, Louisiana Creole.

Seedsmen's synonyms. *Louisiana*, Alx Hde Stk Tex.

Crystal Wax. Cam Hst.

Similar names. Hastings' Crystal Wax, Griffing's White Wax, White Wax.

Danvers. Lan Liv. For similar names see *Yellow Danvers.*

Seedsmen's synonyms. *Early Red Globe*, Liv.

Dobbie's Ailsa Craig. Ewg.

Early Barletta. Bow Bri Hrs. For similar names see *Adriatic Barletta.*

Early Cracker. Brk *McK.*

Early Danvers. Bri. For similar names see *Yellow Danvers.*

Early Eight Weeks. Koe.

Similar names. King's Early Eight Weeks.

Early Flat Red. Bng Ggy Jns MV NI *Pac Put Sox Thr* T&B.

Similar names. See *Extra Early Red.*

Early Flat White Italian Tripoli. Crs Vk.

Similar names. See *Giant White Tripoli.*

Early Flat Yellow Danvers. Kra *Lnr* HP Ren SB.

Similar names. See *Yellow Danvers.*

Early Hard Round White Dutch. *CE* GH Ggy Lnr Ree.

Similar names. See *White Dutch.*

Early Italian White Globe. M&S. For similar names see *White Globe.*

Early Italian Yellow Globe. M&S. For similar names see *Southport Yellow Globe.*

Early Large Red. Hrs Pne Pot. For similar names see *Early Red.*

Early Large Red Globe. Alr Por S&R. For similar names see *Red Globe.*

Early Large Red Wethersfield. Bgs Emr.

Early Marzajola. Gls. For similar names see *Neopolitan Marzajola.*

Early Neapolitan Marzajola. Fer. For similar names see *Neopolitan Marzajola.*

Early Paris Silverskin. Kei. For similar names see *Silverskin.*

Early Queen. Mzy. For similar names see *Queen.*

Early Radish. Chl.

Seedsmen's synonyms. *Barletta*, Chl.

Early Red. Anb Ebe Elt Fqr Mrs Mzy Rim Vin.

Similar names. Large Red, Early Large Red, Early Round Red, Extra Early Round Red, California Early Red. See also *Extra Early Red.*

Early Red Globe. Brd Bru Brb C&J CF *Crg* Crs Del DD Drm Emr RE Fmr Fax Gry Lan *LB* Liv JMM *Mic* MV NK Pir Rs S&F S&O Sox Thr Vau Yng.

Similar names. See *Red Globe.*

Seedsmen's synonyms. *Danvers*, Liv.

Early Red Globe Danvers. Ggy *J&S* Rs.

Similar names. See *Red Globe, Yellow Danvers.*

Early Round Red. K&W. For similar names see *Early Red.*

Early Round Red Globe. EBC. For similar names see *Red Globe.*

Early Round Yellow Danvers. Ggy. For similar names see *Yellow Danvers.*

Early Silverskin. McK Ren. For similar names see *Silverskin.*

Early Silver White Paris. HP. For similar names see *Extra Early Paris.*

Early White Barletta. Alr Bui Col Ewg Gra TG McK Ree Ren Roc Thr.

Similar names. See *Adriatic Barletta.*

Early White Naples. Sal. For similar names see *Naples.*

Early White Nocera. Mnd. For similar names see *White Nocera.*

Early White Pearl. Bri Cur Hrs J&M Roc Web.

Similar names. White Pearl, Extra Early White Pearl, Bloomsdale Extra Early White Pearl, Bloomsdale Early White Pearl, Mammoth White Pearl.

Early White Pickling. Vau. For similar names see *White Pickling.*

Early White Queen. Btl Bel Bui Bur Col Dlw Fst TG J&M Mgd JMP Ree SC Til.

Similar names. See *Queen.*

Seedsmen's synonyms. *Early Radish*, Bur. *Extra Early Barletta*, Bur.

Early White Spanish. M&S. For similar names see *White Spanish.*

Early Yellow Cracker. Bur Fle Ggy Gry Mau Pg Raw Rs S&F *Sie* Tem Vau Vk Wdr.

Similar names. See *Yellow Cracker.*

Early Yellow Flat. Fqr.

Seedsmen's synonyms. *Cracker*, Fqr.

Early Yellow Globe Danvers. Hop. For similar names see *Yellow Danvers.*

Ebenezer. *Y&H.*

Egyptian. Bur Spf.

Egyptian Queen. Cam. For similar name, see *Queen.*

Eichling's Yellow Queen. Eic. For similar names see *Queen.*

El Paso. Anb Bai Btl Bow Cox Crs DD Ger SC Shm Tex Vin.

Similar names. White El Paso.

Seedsmen's synonyms. *Giant Mexican*, Frd. *Giant White Italian Tripoli*, Bur CA Frd J&S. *Giant White Tripoli*, Hst Lam. *Large Mexican*, Bow Bur Cox J&S Ree Vin, etc. *Large White Italian Tripoli*, Ree. *Mexican*, Anb Bai.

English Potato. Gng. For similar names see *Potato.*

English White Pickling. GH. For similar names see *White Pickling.*

Etna. Shm Thr.

Similar names. Red Etna, Silver White Etna.

Express. *Vau.*

Eureka Early Red Globe. *CE* Frd Hop Mls Ree. For similar names see *Red Globe.*

Evans' Red Globe Prize Taker. Entered as *Prize Taker Red Globe.*

Excelsior White Pickling. Dlw Ebr H&P Thr *Vl.*

Similar names. See *White Pickling.*

Extra Early Australian Brown. SB. For similar names see *Australian Brown.*

Extra Early Australian Yellow Globe. Bur.

Similar names. See *Australian Brown.*

Extra Early Barletta. Ar Btl Ber Bur Brr C&J Chl Dlw D&H Elt RE Fmr Fst Frd GH Hns *Hst* H&C Iow J&M Lan Liv May *Pac* Pg Por Pug S&R Sox Tem T&B.

Similar names. See *Adriatic Barletta.*

Seedsmen's synonyms. *Earliest White Queen,* Pg J&M. *Early Radish,* Bur. *Improved Early White Queen,* Bur. *White Queen,* Hlm.

Extra Early Cracker. *Mau.*

Extra Early Combination. Buc Roc.

Similar names. Buckbee's Extra Early Combination.

Extra Early Dark Red. Lan. For similar names see *Extra Early Red.*

Extra Early Flat Red. Agn Btl *Ber* Bow Bgg Bdg Bgs Brn Bru CE EBC Cle *Cox* Cur Del Fmr GH Grw TG Hns Ham Hrm Hen Hbt Kei Kos Lan Lnr *Liv* Mgd Mic Mrs Neb Nol NK Pac Poo Pri Raw Ree Roh Rs S&R S&O Shm Sox SB Tat Vl Vau Vk W&D Wdr.

Similar names. See *Extra Early Red.*

Extra Early Gold. MWJ. For similar names see *Bloomsdale Gold Seal.*

Extra Early Paris. Kei.

Similar names. Early Silver White Paris.

Extra Early Pearl. Col Drm Evr Frd Iow Lnr Mau *Tpk* Tat.

Seedmen's synonyms. *Silver White Etna,* D&H Liv.

Extra Early Queen. Buc D&H Grw Hns Roc. For similar names see *Queen.*

Extra Early Red. Alr Ar Bai Bel Bgg Brk Buc Bui Brb Bur Brr C&J Chl C&B Col CF Cox Crg CA Dlw D&H DD Drr RE Evr Fst Fer Fle Frd Ger Hde Hrn Hst H&C H&P Iml Iow MWJ J&M Lan Lea LB JL Loh Mau JCM McK Mhl Mls Min M&S Nef OV Pg Pks HP JMP Pir Pnt Ptt Qkr Ree Ren Roc Rt RP Shw Sim Spf Tem TB AGT *Tlh* Tpk Trm *Vl* Wea Web Wll Wd WS.

Similar names. Archias' Improved Extra Early Red, Bell's Extra Early Red, Bloomsdale Extra Early Red, Bloomsdale Extra Early Red Seal; Extra Early Red Seal, Bloomsdale Extra Early Dark Red, Bloomsdale Early Red, Flat Red, Early Flat Red, Extra Early Flat Red, Aroostook Extra Early Flat Red, Henderson's Extra Early Flat Red, Philadelphia Extra Early Flat Red.

Extra Early Red Globe. Bkt Dun GH Ham Mrs Nol NK Pac Pug Raw Sal.

Similar names. See *Red Globe.*

Extra Early Red Globe Danvers. J&S.

Similar names. See *Red Globe, Yellow Danvers.*

Extra Early Red Seal. MWJ. For similar names see *Extra Early Red.*

Extra Early Red Wethersfield. Ewg Gra. For similar names see *Red Wethersfield.*

Extra Early Round Red. H&C. For similar names see *Early Red.*

Extra Early White Barletta. Brr Evr Mic Qkr.

Similar names. See *Adriatic Barletta.*

Seedsmen's synonyms. *White Queen,* Qkr.

Extra Early White Pearl. Agn Alx Ar Bak Bel Bui Bur Col D&H DD Drm Evr Fmr Fst Ger Grw Hde Hrn Hbt H&P Iow MWJ J&S K&F Kos Lan Lnr Liv Mau M&S Neb OV HP Pri Rt SC Shw Spf Tat Tex Vl *Wat* Wd WS.

Similar names. See *Early White Pearl.*

Seedsmen's synonyms. *Silver White Etna*, Grw D&H Liv. *Bloomsdale*, Liv. *Barletta*, Ger. *Bloomsdale Pearl*, Bur.

Extra Early White Queen. Tat *Wat.* For similar names see *Queen.*

Extra Early Yellow Cracker. Lnr Sim. For similar names see *Yellow Cracker.*

Extra Large Red Wethersfield. Ewg H&C H&P J&S Lea *Vl.*

Similar names. See *Red Wethersfield.*

Flat Danvers. Agn Cox RE Kg Lnr. For similar names see *Yellow Danvers.*

Flat Red. May. For similar names see *Extra Early Red.*

Flat Red Bermuda. MV Mzy. For similar names see *Red Bermuda.*

Flat White Bermuda. MV Mzy Tat. For similar names see *White Bermuda.*

Flat White Portugal. Shm. For similar names see *White Portugal.*

Flat Yellow Danvers. Btl Bkt Brn Bru Buc Del *DD* Evr Frd Hns Hrn H&P Iml *RHJ* J&M Lam Lan *LB* Liv Mns May Mrs Neb OV Pac Pnt Roh Rp SC Sox Spf TB *Tpk* Vl Vau Web.

Similar names. See *Yellow Danvers.*

Seedsmen's synonyms. *Round Yellow Danvers*, Bur. *Buckbee's Round Yellow Danvers*, Buc.

Flat Yellow Dutch. Bgs Shm. For similar names see *Yellow Dutch.*

Germain's Yellow Globe Danvers. Entered as *Yellow Globe Danvers.*

Giant Blood Red Vesuvius. Gra. For similar names see *Giant Vesuvius.*

Giant Brown Rocca. RE Fmr Mgd Sim SB *Vau.* For similar names see *Giant Rocca.*

Giant Madrid. Frd.

Giant Pompeii. Mau. For similar names see *Mammoth Pompeii.*

Giant Prize Taker. Ar Bru D&H *RE* Ewg Gra Kei McK Ren.

Similar names. See *Prize Taker.*

Seedsmen's synonyms. *Mammoth Prize Taker*, Kei.

Giant Red Garganus. *CE* C&B Lan JMM Ree W&D.

Similar names. Mammoth Red Garganus, Red Garganus, Mammoth Garganus.

Seedsmen's synonyms. *Mammoth Pompeii*, W&D. *Pompeii*, Lan.

Giant Red Italian Tripoli. Bow Frd SB.

Similar names. See *Giant Red Tripoli.*

Seedsmen's synonyms. *Bermuda Red*, Frd.

Giant Red Rocca. *Alr Bel* Brk Bui *Bur* Cle DD Fst Gdn *Lnr May* Nol Pnt SC Shw Shm Tem Thr *Wat.*

Similar names. See *Giant Rocca.*

Giant Red Tripoli. Alx Mau Ren Sal Shw.

Similar names. Mammoth Red Tripoli, Large Red Tripoli, Red Globe Tripoli, Red Tripoli, Red Italian Tripoli, Giant Red Italian Tripoli, Large Red Italian Tripoli, Large Blood-Red Italian Tripoli.

Giant Red Vesuvius. Mau Mls Shm. For similar names see *Giant Vesuvius.*

Giant Rocca. Alr Anb Bel Bow Brk Bru Bur *CE* C&B Crg D&H Drm Ebr Elt RE Evr Ewg Fqr Fst GH Gra Hrs Hrv J&S Lam LB Liv JL Man Mzy Nef OV Pac Pg HP JMP Prn Por Ren Ree Sal S&R *S&F* Sox S&H Tat T&B Vin Web W&D Yng.

Similar names. Large Giant Rocca, Giant Rocca of Naples, Giant Rocca, McMillan's Rocca King, Red Rocca, Giant Red Rocca, Light Red Giant Rocca, White Rocca, Giant White Rocca, Yellow Rocca, Giant Yellow Rocca, Tripoli Giant Yellow Rocca, Giant Brown Rocca, Lemon Rocca.

Seedsmen's synonyms. *Red Globe*, Ree.

Giant Rocca of Naples. Bdg Bur Crs Frd Gls Hst Kei *Lnr* Mau Ree Vk.

Similar names. See *Giant Rocca.*

Giant Silver King. Sal. For similar names see *Silver King.*

Giant Vesuvius. Iow.

Similar names. Giant Red Vesuvius, Giant Blood-Red Vesuvius.

Giant White Garganus. *CE* C&B Elt Frd GH Lan Ree Shm Stw W&D.

Similar names. Mammoth White Garganus, White Garganus, Mammoth Garganus.

Seedsmen's synonyms. *Mammoth Silver King,* Elt Frd W&D. *Silver King,* C&B Hen Lan Stw.

Giant White Italian Tripoli. Btl Bow Bui Bur Crs CA Evr Fst Fer Frd GH Gry J&S *Lnr* LB Pug Raw Ree SB S&H.

Similar names. See *Giant White Tripoli.*

Seedsmen's synonyms. *El Paso,* Bur CA Frd J&S. *Giant Mexican,* Frd. *Large Mexican,* Bur CA J&S.

Giant White Rocca. DD Lnr Wea. For similar names see *Giant Rocca.*

Seedsmen's synonyms. *Silver Ball,* Bur.

Giant White Tripoli. Alx *Bak* Bri Bru Cam DD Fqr Ger Gdn Hst Ken Lam Mnd Mau *Mic* MV *Pac* Pnt Ree Ren Roe Sal SC S&F *Sox* S&W Web.

Similar names. White Tripoli, Large White Tripoli, White Italian Tripoli, Large White Italian Tripoli, Early Flat White Italian Tripoli, Large Flat White Italian Tripoli, Large Flat White Italian, Giant White Italian Tripoli.

Seedsmen's synonyms. *El Paso,* Hst Lam. *Large Mexican,* Hst.

Giant White Victoria. Hrn. For similar names see *White Victoria.*

Giant Yellow. Kg Sim *SB.*

Similar names. Giant Yellow Tripoli, Large Yellow, Improved Large Yellow, Bloomsdale Yellow.

Giant Yellow Prize Taker. Bui Hde Pnt SC. For similar names see *Prize Taker.*

Giant Yellow Rocca. Bui Bur DD Fst *Lnr May* MV Ren SC Shm *Sox* SB Thr Vau *Wat.*

Similar names. See *Giant Rocca.*

Seedsmen's synonyms. *Spanish King,* Bui Bur DD. *Giant Lemon Rocca,* Sim.

Giant Yellow Tripoli. Gdn. For similar names see *Giant Yellow.*

Giant Yellow Zittau. Mnd. For similar names see *Giant Zittau.*

Giant Zittau. Shm.

Similar names. Giant Yellow Zittau.

Gigantic Gibraltar. Bur *Mau McK* Rt *Sim Spf.*

Gladiator. Sal.

Similar names. Salzer's Gladiator.

Golden Ball. J&S. For similar names see *Silver Ball.*

Golden Globe. Alr GN *Iow* Roe Shm.

Similar names. Shumway's Golden Giant, Buckbee's Golden Globe Danvers.

Golden Globe Danvers. Buc. For similar names see *Golden Globe.*

Golden Oregon. Cok.

Similar names. Oregon Danvers Long Keeper, Oregon Yellow Danvers.

Golden Queen. Fst Wll. For similar names see *Queen.*

Golden Rono. Thm.

Globe Red Wethersfield. Fld Kra Neb. For similar names see *Red Wethersfield.*

Globe Wethersfield. Fmr LB Mgd MV Mrs Sox.

Similar names. See *Red Wethersfield.*

Gregory's Early Red Globe. Entered as *Early Red Globe.*

Griffing's White Wax. Entered as *White Wax.*

Griswold's Improved Early Red Globe, Griswold's Medium Early Red Globe. Entered as *Early Red Globe* and *Medium Early Red Globe.*

Hammond's Extra Early Red Globe, Hammond's Improved Southport Red Globe, Hammond's Large Red Wethersfield, Hammond's Michigan Yellow Globe, Hammond's Southport Yellow Globe, Hammond's White Barletta, Hammond's White Globe, Hammond's Yellow Globe Danvers. Entered as *Extra Early Red Globe*, *Southport Red Globe*, *Large Red Wethersfield*, *Michigan Yellow Globe*, *Southport Yellow Globe*, etc.

Hardy Winter White. *MWJ Sie Spf Tem* W&D.

Hard Round Golden. Lan.

Hard Round Silverskin. Col J&S Nol. For similar names see *Silverskin*.

Seedsmen's synonyms. *White Pickling*, Col.

Hard Round White Dutch. Thr Til. For similar names see *White Dutch*.

Harris' Large Red Globe. Entered as *Large Red Globe*.

Hastings' Crystal Wax. Entered as *Crystal Wax*.

Henderson's Extra Early Flat Red, Henderson's Large Red Wethersfield, Henderson's Prize Taker, Henderson's Southport Red Globe, Henderson's Southport White Globe, Henderson's Southport Yellow Globe, Henderson's White Bunch, Henderson's White Portugal, Henderson's Yellow Globe Danvers. Entered as *Extra Early Flat Red*, *Large Red Wethersfield*, *Prize Taker*, *Southport Red Globe*, *Southport White Globe*, *Southport Yellow Globe*, etc.

Holmes' Improved Yellow Globe Danvers. Entered as *Yellow Globe Danvers*.

Ideal White Globe. Vau. For similar names see *White Globe*.

Imperial. May OV.

Similar names. May's Imperial.

Improved Early White Queen, Improved Large Yellow, Improved Large Yellow Globe, Improved Red Bermuda, Improved Red Globe, Improved White Bermuda, Improved Yellow Globe Danvers. Entered as *Early White Queen*, *Large Yellow*, *Large Yellow Globe*, *Red Bermuda*, *Red Globe*, etc.

Italian May. Bur.

Seedsmen's synonyms. *Neopolitan Marzajola*, Bur Liv. *White Marzajola*, Shw.

Italian Queen. Koe Lan Stw. For similar names see *Queen*.

Italian Silverskin. Thr. For similar names see *Silverskin*.

Seedsmen's synonyms. *White Bunching*, Thr.

Ivory Ball. J&S. For similar names see *Silver Ball*.

James' Long-Keeping. RHJ Koe *McK*. For similar names see *Long Keeper*.

James' Long-Keeping Yellow. M&S. For similar names see *Long Keeper*.

King of the Earliest. Sal.

Similar names. Salzer's King of the Earliest.

King's Early Eight Weeks. Entered as *Early Eight Weeks*.

Landreth's Hard Round Golden. Entered as *Hard Round Golden*.

Large Blood Red Italian Tripoli. Kei Vk.

Similar names. See *Giant Red Tripoli*.

Large Extra Early Red Globe. Bow. For similar names see *Red Globe*.

Large Flat White Italian. Ggy. For similar names see *Giant White Tripoli*.

Large Flat White Italian Tripoli. Kei Vk.

Similar names. See *Giant White Tripoli*.

Large Flat Yellow Danvers. Shm Sim. For similar names see *Yellow Danvers*.

Large French. Sim.

Seedsmen's synonyms. *Welch*, Sim.

Large Giant Rocca. RHJ. For similar names see *Giant Rocca*.

Large Late Red Globe. Sal. For similar names see *Red Globe*.

Large Mexican. Bow Cox Crs DD Ger SC Tex Vin.

Similar names. White Mexican, Mexico.

Seedsmen's synonyms. *El Paso*, Bow Bur Cox DD J&S Vin. *Giant White Italian Tripoli*, Bur CA J&S. *Giant White Tripoli*, Hst. *Large White Italian Tripoli*, Ree.

Large Pompeii. Vk. For similar names see *Mammoth Pompeii.*

Large Portugal. Yng. For similar names see *White Portugal.*

Seedsmen's synonyms. *Silverskin,* Yng.

Large Red. Hnt. For similar names see *Early Red.*

Large Red Bermuda. Drm Hns Mhl Shm. For similar names see *Red Bermuda.*

Large Red Globe. Anb Ar Brd Btl Bel Bdg Bru Bng Brb Bur C&B Col Cur D&H DD Ebr Fst GH Ham Hrs Hly K&F Lam Liv JMM MV Pnt Pri Ree Ren Sal Shw Shm *Sox* S&H Tem Thr Wea.

Similar names. See *Red Globe.*

Seedsmen's synonyms. *Southport Red Globe,* Bng.

Large Red Italian Tripoli. C&B W&D.

Similar names. See *Giant Red Tripoli.*

Large Red Madeira. Sim.

Large Red Tripoli. Drr RE. For similar names see *Giant Red Tripoli.*

Large Red Wethersfield. Agn Alr Anb Ar Bai Bak Brb Btl Bel Ber Blg Bow Bgg Brk Bdg Brn Bru Bng Bui Brd Bur Brr Brw C&J CE Chl EBC Cle C&B Col CF Cok Crg Crs Cur CA Dlw D&H DD D&C Drr Drm Dun Eas Ebe Ebr Elt RE Evr *Evg* Fmr Fqr Fst Fax Fer Fle Frd Ger Gls Gdn GH Gra Gng Ggy Gry Grw TG Hns Ham Hde Hrm Hrn *Hrs* Hrv Hst Haw Hen H&C Hly Hop Hse Iml Iow Jac MWJ J&M Jns Kei K&W Ken K&F Kg Koe Kos Lam Lan Lnr LB Liv JL Loh Lon Mnd Mgd Mas Mau JCM JMM McK Mel Mic Mhl Mls Min MV Mzy Neb Nef Nol NI NK Old Pac Pks HP JMP Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr Rtk Raw Ree Ren Rce Roc Roh Rt RP S&R SC S&F S&B Shw S&O Shm Sie Sim Sox Spf SB Stw S&H S&W Tat Tem Tex TB Thr Thb AGT Til Tpk Trm Vl Vau Vk Wea Web W&D Wll Wd Wdr WS Wyg Y&H.

Similar names. See *Red Wethersfield.*

Large White Bermuda. Hns Mhl Shm. For similar names see *White Bermuda.*

Large White Globe. Ar Ber Bng Bur Cur D&H Ebr GH H&P Iml Iow Liv JL Mns May JMM MV Neb Roc S&B Shw *Sox* S&W Thr Til *Vl.*

Similar names. See *White Globe.*

Large White Italian Tripoli. *CE* C&B Cox M&S JMP Vk Vin W&D.

Similar names. See *Giant White Tripoli.*

Seedsmen's synonyms. *El Paso,* Rce. *Large Mexican,* Rce.

Large White Portugal. Ebr RE Mnd MV Sim *Sox* Thr.

Similar names. See *White Portugal.*

Seedsmen's synonyms. *Silverskin,* Y&H.

Large White Tripoli. RE Hns. For similar names see *Giant White Tripoli.*

Large Yellow. Ggy Hnt. For similar names see *Giant Yellow.*

Seedsmen's synonyms. *Yellow Strasburg,* Ggy.

Large Yellow Dutch. Bel RE Fer Lam Liv Loh JCM Vk.

Similar names. See *Yellow Dutch.*

Seedsmen's synonyms. *Strasburg,* Fer G&T Loh Lam Vk.

Large Yellow Globe. Bur Ebr Liv MV *Sox* Spf S&W Thr.

Similar names. See *Southport Yellow Globe.*

Large Yellow Globe Danvers. Gdn Hly Jac Lan SC *Shw* Shm Sim.

Similar names. See *Yellow Danvers.*

Large Yellow Spanish. Ptt.

Similar names. Mammoth Yellow Spanish, Yellow Globe Spanish.

Seedsmen's Synonyms. *Mammoth Prize Taker,* Wdr. *Prize Taker,* Ptt.

Large Yellow Strasburg. *Bur* Dlw Fer Lan Sim.

Similar names. See *Yellow Strasburg.*

Seedsmen's synonyms. *Dutch,* Sim.

Lemon Rocca. Sim. For similar names see *Giant Rocca.*

Seedsmen's synonyms. *Giant Yellow Rocca,* Sim.

Leonard's Extra Early Yellow Cracker, Leonard's Red Globe, Leonard's White Globe, Leonard's Yellow Globe. Entered as *Extra Early Yellow Cracker, Red Globe, White Globe,* and *Yellow Globe.*

Light Red Giant Rocca. MV. For similar names see *Giant Rocca.*

Livingston's Brown Beauty. Entered as *Brown Beauty.*

Long Keeper. LB.

Similar names. Oregon Danvers Long Keeper, James' Long-Keeping, James' Long-Keeping Yellow, Moore & Simon's James' Long-Keeping Yellow.

Seedsmen's synonyms. *Yellow Danvers,* LB.

Louisiana. Alx Cam Hde Stk Tex Wd.

Similar names. Louisiana Creole.

Seedsmen's synonyms. *Creole,* Alx Hde Stk Tex.

Louisiana Creole. Crs Eic Gfg *Iow.* For similar names see *Louisiana, Creole.*

McMillan's Rocca King. Entered as *Rocca King.*

Madeira Red Globe. Thr.

Similar names. Large Red Madeira, White Madeira.

Mammoth Copper King. Lnr JL. For similar names see *Copper King.*

Mammoth Garganus. Cle.

Similar names. See *Giant Red Garganus, Giant White Garganus.*

Seedsmen's synonyms. *Silver King,* Brk Nol.

Mammoth Pompeii. Alr Bel Bur Chl C&B Col Cur DD Fst Iow MWJ Lan Lnr Liv JMM Ree Ren Sal Shw Shm Sim Spf *Wat* W&D.

Similar names. Giant Pompeii, Large Pompeii, Mammoth Red Pompeii.

Seedsmen's synonyms. *Copper King,* Col DD Iow Liv Spf. *Giant Red Garganus,* W&D. *Red Garganus,* C&B Cur Hen Liv.

Mammoth Prize Taker. Alr Ber Blg Brn C&J Col Ger Haw H&C H&P Iow Kei Kg *Liv* JL Man Pac Shm Stw *Vl* Vk Wat Wdr.

Similar names. See *Prize Taker.*

Seedsmen's synonyms. *Giant Prize Taker,* Kei. *Large Yellow Spanish,* Wdr. *Spanish King,* Ger.

Mammoth Red Garganus. Thr.

Similar names. See *Giant Red Garganus.*

Mammoth Red Pompeii. *CE* Frd Hse Lnr Mls Ree Wer.

Similar names. See *Mammoth Pompeii.*

Seedsmen's synonyms. *Copper King,* Bgs Ree.

Mammoth Red Tripoli. Bur DD Drm Ggy Mau HP Raw Shm.

Similar names. See *Giant Red Tripoli.*

Seedsmen's synonyms. *Bermuda Red,* DD.

Mammoth Red Victoria. Bui Bur Cur D&H Gra Hly Hse Shm Tem.

Similar names. See *Red Victoria.*

Mammoth Silverskin. Ber Jac Jer Lnr *Loh* RP Vk.

Similar names. See *Silverskin.*

Mammoth Silver King. Alx Alr Anb Bak Btl Bel Ber Bow Bru Buc Bur Cam *CE* Chl Col Cok Cox Cur CA Dlw D&H DD D&C Drr Drm Ebe Elt Emr RE Evr Fmr Fst Fer Frd Ger Gls Gdn GH Gng Gry Grw Hns Ham Hde Hrn Hst *H&C* H&P Iml Iow MWJ J&S *Jns* Kei Kos Kra Lam Lan LB Liv JL Mau May JCM JMM McK Mic Mls MV M&S Neb NK OV Old Pac HP JMP Pir Por Pri Qkr Raw Ren Ree Roc S&R S&O Shm Sim Sox Spf SB S&H Tem Thm Til *Tpk* Trm T&B Vl Vau *Wat* Web W&D Wlt Wd WS.

Similar names. See *Silver King.*

Seedsmen's synonyms. *Giant White Garganus,* Elt Frd W&D. *White Garganus,* Hrn Spf.

Mammoth Spanish King. Alr Lnr Shm. For similar names see *Spanish King.*

Mammoth White Garganus. Brk Crs Mnd Thr Vk.

Similar names. See *Giant White Garganus.*

Seedsmen's synonyms. *Silver King*, Crs Thr.

Mammoth White Pearl. Ren. For similar names see *Early White Pearl.*

Mammoth White Prize Winner. Iow. For similar names see *Prize Taker.*

Mammoth White Silver King. Ar Bui *May* Pnt SC Shw Wer.

Similar names. See *Silver King.*

Seedsmen's synonyms. *White Garganus*, Pnt.

Mammoth White Victoria. Bui Bur Shm. For similar names see *White Victoria.*

Mammoth Yellow Prize Taker. J&S Mhl M&S.

Similar names. See *Prize Taker.*

Mammoth Yellow Spanish. Fer Jns Vau.

Similar names. See *Large Yellow Spanish.*

Seedsmen's synonyms. *Prize Taker*, Fer Jns Vau.

Market Favorite. RHJ.

Marzajola. CE Ger Ree Sal Thm. For similar names see *Neapolitan Marzajola.*

Seedsmen's synonyms. *Neapolitan*, Ger.

Maule's Large Red Wethersfield, Maule's Prize Taker, Maule's Yellow Globe Danvers. Entered as *Large Red Wethersfield*, *Prize Taker*, and *Yellow Globe Danvers.*

May's Imperial, May's Red Wethersfield, May's Red Wonder, May's Sultan. Entered as *Imperial*, *Red Wethersfield*, *Red Wonder*, and *Sultan.*

Medium Early Red Globe. Grw TG Mzy Thb.

Similar names. See *Red Globe.*

Medium Yellow Danvers. Eas. For similar names see *Yellow Danvers.*

Mexican. Anb Bai Sim. For similar names see *Large Mexican.*

Seedsmen's synonyms. *El Paso*, Anb Bai. *White Tripoli*, Sim.

Michigan Globe Danvers. Bri Shm. For similar names see *Yellow Danvers.*

Michigan Yellow Globe. Brd Brn Bur Dlw Ebe Fer GH TG Ham J&S Jns Lnr Loh Mgd *May* Mrs Pg Roc Sie.

Similar names. See *Southport Yellow Globe.*

Seedsmen's synonyms. *Ohio Yellow Globe*, Bur.

Mills' Eureka Early Red Globe, Mills' White Pickling. Entered as *Eureka Early Red Globe* and *White Pickling.*

Minnesota Globe Wethersfield. J&S. For similar names see *Red Wethersfield.*

Minnesota Red Globe. Mic NK. For similar names see *Red Globe.*

Minnesota White Globe. J&S NK. For similar names see *White Globe.*

Moore & Simon's Early White Spanish, Moore & Simon's James' Long-Keeping Yellow, Moore & Simon's Yellow Globe Danvers. Entered as *Early White Spanish*, *James' Long-Keeping Yellow*, and *Yellow Globe Danvers.*

Naples Evr Fst

Similar names. Early White Naples.

Neapolitan. Ger Vin. For similar names see *Neapolitan Marzajola.*

Seedsmen's synonyms. *Marzajola*, Ger.

Neapolitan Marzajola. Bur C&B DD Lnr Liv Mau Pir Vk.

Similar names. Neapolitan, Marzajola, Early Neapolitan Marzajola, Early Marzajola, White Marzajola.

Seedsmen's synonyms. *Italian May*, Bur Liv.

Nebraska Seed Co.'s White Pickling. Entered as *White Pickling.*

Neckless Yellow Globe Danvers. Sal. For similar names see *Yellow Danvers.*

North Land. *McK.*

Northrup, King & Co.'s Minnesota Red Globe, Northrup, King & Co.'s Minnesota White Globe, Northrup, King & Co.'s White Pickling. Entered as *Minnesota Red Globe*, *Minnesota White Globe*, and *White Pickling.*

Ohio Globe Danvers. Bri Frd Lon. For similar names see *Yellow Danvers.*

Ohio Yellow Globe. Bur *Cox* Fle Gls GH Jns *Lnr* Liv Mls Vau.

Similar names. See *Southport Yellow Globe.*

Seedsmen's synonyms. *Michigan Yellow Globe,* Bur

Opal. Tat.

Similar names. Tait's Opal.

Oregon Danvers Long Keeper. Hns *Rce.* For similar names see *Long Keeper.*

Oregon Yellow Danvers. Btl Bow Lam Por S&R AGT.

Similar names. See *Yellow Danvers.*

Page's Perfection. Pg Vl.

Pale Red Bermuda. Kei M&S Tat W&D Yng.

Similar names. See *Red Bermuda.*

Paris Silverskin. *CE* CF Rce *Sal.* For similar names see *Silverskin.*

Paris Silverskin Pickling. *D&H* GH. For similar names see *Silverskin.*

Paris White Pickling. May Neb OV *Tpk.* For similar names see *White Pickling.*

Seedsmen's synonyms. *Small Silverskin,* Neb.

Paris White Silverskin. Brd CE NK. For similar names see *Silverskin.*

Peerless White Globe. May OV. For similar names see *White Globe.*

Perennial Tree. Bur Spf Tem.

Perfection Red Globe. *May* OV. For similar names see *Red Globe.*

Philadelphia Early White Bunch. M&S. For similar names see *White Bunch.*

Philadelphia Extra Early Flat Red. J&S M&S.

Similar names. See *Extra Early Red.*

Philadelphia Extra Large Early Red Wethersfield. M&S.

Philadelphia Silverskin. Agn Bur *CE* GH Jns Lan Man May Neb *Pnt* Rce Roh Vl *Vau* Wat.

Similar names. See *Silverskin.*

Philadelphia White Silverskin. J&S *Jns* Liv M&S Pnt Roc SC.

Similar names. See *Silverskin.*

Seedsmen's synonyms. *Portugal,* J&S. *White Portugal,* M&S.

Philadelphia Yellow Dutch. *CE* Drr J&S Rce.

Similar names. See *Yellow Dutch.*

Seedsmen's synonyms. *Strasburg,* Drr J&S Rce.

Philadelphia Yellow Globe Danvers. M&S.

Similar names. See *Yellow Danvers.*

Philadelphia Yellow Strasburg. J&S Lan Liv M&S Thm.

Similar names. See *Yellow Strasburg.*

Seedsmen's synonyms. *Dutch,* M&S.

Pickling Queen. Bri. For similar names see *Queen.*

Potato. Brk Bdg M&S Spf.

Similar names. English Potato.

Powhatan. GN.

Price & Reed's Improved Yellow Globe Danvers. Entered as *Yellow Globe Danvers.*

Prize Taker. Agn Alx Anb Bak Brd Brt Btl Bkt *Bel* Bow Brk Bdg Bgs Bri Bng Buc Brb Bur Brr Brw Cam CE Chl Cle C&B CF Cok Cox *Crg* Crs Cur CA Dlw D&H Del *DD* D&C Drr Drw Drm Dun Ebe Ebr Elt Emr RE Evr Fmr Fqr Fld Frd Gls GH Gng GN Ggy Gry G&T Grw TG Hns Ham Hrn Hrs Hrv Hst Hen H&C Hse Hnt Iml Jac MWJ RHJ J&M Jns K&W Ken Koe Kos Kra Lam Lan Lnr LB Liv Loh Mnd Mgd PM Mns Mau May JCM JMM McM Mel Mic Mls MV Mrs Neb Nef Nol NK NI OV Old *Pac* Pg Pks HP JMP Pir Prn Ptt Poo Por Pot Pri Qkr Raw Ree Rce Roc Roh Rt Rs RP Sal S&R S&F Shw S&O Sie Sim Sox Spf Stk S&H S&W Tat Tem TB Thm Thr Til *Tpk* Trm T&B Vl Vau *Wat* Wca Web W&D Wer Wll Wd WS Wyg Yng Y&H.

Similar names. Henderson's Prize Taker, Maule's Prize Taker, Giant Prize Taker, Giant Yellow Prize Taker, Mammoth Yellow Prize Taker, Yellow Prize Taker, Mammoth Prize Taker, White Prize Winner, Prize Winner, Mammoth White Prize Winner, Prize Taker Red Globe.

Seedsmen's synonyms. *Globe Spanish*, Brk. *Large Yellow Spanish*, Ptt. *Mammoth Yellow Spanish*, Fer Jns Vau. *Spanish King*, Alx Bkt Bow RP Spf TB. *Yellow Globe Spanish*, Evr Ken Qkr Thr.

Prize Taker Red Globe. RE SB. For similar names see *Prize Taker*, *Red Globe*.

Prize Winner. Rce *Tlh.* For similar names see *Prize Taker*.

Pure White Bermuda. M&S. For similar names see *White Bermuda*.

Queen. Anb Bai Brd Bkt Bow Brk Bdg Bru Cle C&B CF Cur Drm Eas Emr RE Ewg Fqr Fer Fld Fle Frd Ger GH Gra Gng Ggy Gry Iml RHJ Jns Kei Ken Lam LB Loh Mnd Man JMM Mic Min MV Nef *Pac* Pg Pir Poo Pri Raw Sai SC Sie Sox Thm Trm T&B W&D Wll.

Similar names. Early Queen, Extra Early Queen, White Queen, Early White Queen, Improved Early White Queen, Tait's Extra Early White Queen, Extra Early White Queen, Silver White Queen, Golden Queen, Will's Golden Queen, Eichling's Yellow Queen, Pickling Queen, Small Queen, Egyptian Queen, Italian Queen.

Seedsmen's synonyms. *Earliest White Queen*, Frd.

Rapid White Pickling. Bel. For similar names see *White Pickling*.

Red Bassano. Thr.

Red Bermuda. Alx Anb Bai *Bak* Btl Blg Bou Brk Bui Cam *CE* Cle Crs C&B Del DD Drr Eic Gdn GH Gfg G&T Grw Hrn Hst Jac MWJ J&M J&S Kei Lan *Lnr* Liv Man Mau May Mrs Nef NK OV Qkr Raw Rce Rt SC Shw *Sox* Stk Tex Thm Thr Trm Vin *Wer* *Wlt* Wd WS.

Similar names. Large Red Bermuda, Improved Red Bermuda, Pale-Red Bermuda, Flat Red Bermuda.

Seedsmen's synonyms. *Giant Red Italian Tripoli*, Frd. *Mammoth Red Tripoli*, DD.

Red Cracker. Fqr Vau. For similar names see *Yellow Cracker*.

Red Etna. Thr. For similar names see *Etna*.

Red Garganus. Lan. For similar names see *Giant Red Garganus*.

Seedsmen's synonyms. *Copper King*, Liv. *Mammoth Pompeii*, C&B Cur Hen Liv.

Red Giant. Buc Roc.

Similar names. Buckbee's Red Giant.

Red Globe. Ber Brk Bui Cle Del *DD* Drw Elt Ewg Fmr Fqr *Fld* Lnr Man May McK McM Old Prn Ptt Pot Tat.

Similar names. Early Red Globe Danvers, Extra Early Red Globe Danvers, Red Globe Danvers, Leonard's Red Globe, Early Red Globe, Gregory's Early Red Globe, Eureka Early Red Globe, Mills' Eureka Early Red Globe, Rice's Eureka Early Red Globe, Improved Red Globe, Griswold's Improved Early Red Globe, Large Red Globe, Harris' Large Red Globe, Hammond's Extra Early Red Globe, Extra Early Red Globe, Large Extra Early Red Globe, Medium Early Red Globe, Griswold's Medium Early Red Globe, Large Late Red Globe, Early Round Red Globe, Prize Taker Red Globe, Minnesota Red Globe, Northrup, King & Co.'s Minnesota Red Globe; Perfection Red Globe, Southport Red Globe, Henderson's Southport Red Globe, Hammond's Improved Southport Red Globe, Southport Blood-Red Globe, Southport Early Red Globe, Southport Large Early Red Globe, Southport Large Red Globe, Southport Late Red Globe, Southport Globe, Southport Red, Eureka Early Red Globe.

Seedsmen's synonyms. *Giant Rocca*, Rce.

Red Globe Danvers. Eas. For similar names see *Red Globe, Yellow Danvers.*

Red Globe Tripoli. Gng RHJ. For similar names see *Giant Red Tripoli.*

Red Italian Tripoli. Brk *CE* Cle Mrs Ree.

Similar names. See *Giant Red Tripoli.*

Red Rocca. Lnr *Pnt.* For similar names see *Giant Rocca.*

Red Tripoli. May Sim. For similar names see *Giant Red Tripoli.*

Red Victoria. Frd *Lnr* Liv Mls Mrs Ren Shw Sim Thr *Vau.*

Similar names. Mammoth Red Victoria.

Red Welsh. Bru RE SB. For similar names see *Welsh.*

Red Wethersfield. Alx Brt Btl Bkt Bri Buc Cam Chl Cox Del *DD* Drw Fld *Gls* GN Hrs Hbt RHJ Kra Man Mns May McM Mic Mrs *Pac* Pg Pir Rs Sal *Sie* Stk Thm *Tlh* T&B Vin Wat Yng.

Similar names. Buckbee's Red Wethersfield, May's Red Wethersfield, Salzer's Improved Red Wethersfield, Large Red Wethersfield, Alneer's Large Red Wethersfield, Hammond's Large Red Wethersfield, Henderson's Large Red Wethersfield, Maule's Large Red Wethersfield, Early Large Red Wethersfield, Extra Early Red Wethersfield, Philadelphia Extra Large Early Red Wethersfield, Extra Early Red Wethersfield, Globe Wethersfield, Minnesota Globe Wethersfield, Globe Red Wethersfield.

Red Wonder. May OV.

Similar names. May's Red Wonder.

Rennie's Yellow Danvers. Entered as *Yellow Danvers.*

Rhode Island Yellow Cracker. Drr J&S Nol Shw.

Similar names. See *Yellow Cracker.*

Rice's Eureka Early Red Globe, Rice's White Pickling. Entered as *Eureka Early Red Globe* and *White Pickling.*

Rocca King. McM. For similar names see *Giant Rocca.*

Rose-Colored Delicatessen. Evr.

Round White Dutch Pickling. Dlw. For similar names see *White Dutch.*

Round White Silverskin. Dlw Fer Liv *Loh* Mic M&S Pg Pks.

Similar names. See *Silverskin.*

Round Yellow Danvers. Agn Alr Bel Blg Buc Brr Cle CE C&B Cur Fst Hrs Hen Hop J&S Mau M&S Nef Poo Ree Roc *Vk.*

Similar names. See *Yellow Danvers.*

Seedsmen's synonyms. *Flat Yellow Danvers,* Buc Bur.

Salzer's Giant Silver King, Salzer's Gladiator, Salzer's Improved Red Wethersfield, Salzer's King of the Earliest, Salzer's Neckless Yellow Globe Danvers, Salzer's Sixty Day, Salzer's White Pickling. Entered as *Giant Silver King, Gladiator, Red Wethersfield, King of the Earliest, Neckless Yellow Globe Danvers,* etc.

Shumway's Golden Globe. Entered as *Golden Globe.*

Silver Ball. Bur Fst Ren.

Similar names. Ivory Ball, Golden Ball.

Seedsmen's synonyms. *Giant White Rocca,* Bur. *White Rocca,* Fst.

Silver King. Bai Cle C&B CF Crs Del Ebr Ewg Fqr Fld Gra Hbt H&C Hay Kg *Lnr* McM Nef Ree *Ren* SC S&O Tat Thm Thr Vin Yng.

Similar names. Mammoth Silver King, Mammoth White Silver King, Buckbee's Mammoth Silver King, Salzer's Giant Silver King, Giant Silver King.

Seedsmen's synonyms. *Giant White Garganus,* C&B Hen Lan Stw. *Mammoth Garganus,* Brk Nol. *Mammoth White Garganus,* Crs Thr.

Silverskin. Alr Anb Ar Brt Btl Bkt Bgg Bgs Brn Brr C&J CE Cle Col Cox Crg Crs Cur CA Dlw D&H Del Drr Eas Emr RE Fld Frd Ger Gls GH Gry Grv TG Hde Hrm Hrn Hrs Hrv Haw Hnt H&P Iml Iow RHJ Koe Kos Kra Lan Liv JL Loh Mgd Mas Mau JCM JMM *Mel* Mhl Mls Min M&S Mzy *Nol* Old *Pac* HP

Pir Prn Ptt Poo Por Pri Pug Qkr Raw Ree Rim Rs RP S&R S&B S&O Sim Sox Spf SB S&W Tat Tem Tex TB T&B Web W&D Wd Wdr WS Yng Y&H.

Similar names. Silverskin Pickling, Early Silverskin, Hard Round Silverskin, Small Silverskin, American Silverskin, Chicago Silverskin, Philadelphia Silverskin, Philadelphia White Silverskin, White Silverskin, Round White Silverskin, Paris Silverskin, Paris White Silverskin, Early Paris Silverskin, Paris Silverskin Pickling, Mammoth Silverskin, Bloomsdale Silverskin, White Portugal Silverskin, Italian Silverskin.

Seedsmen's synonyms. *Bloomsdale White*, Lan. *Henderson's White Portugal*, Hen. *Large Portugal*, Yng. *Large White Portugal*, Y&H. *New England White*, Blg. *Philadelphia White*, Mau. *Portugal*, Fld. *White*, CA Mas Mhl. *White Portugal*, Brt Bkt C&J Cox Drr Liv, etc.

Silverskin Pickling. Bru Cur Neb. For similar names see *Silverskin.*

Silver White Etna. Grw. For similar names see *Etna.*

Seedsmen's synonyms. *Extra Early Pearl*, D&H Liv. *Extra Early White Pearl*, Grw. *Bloomsdale*, Liv.

Silver White Queen. Bui Drm. For similar names see *Queen.*

Sixty Day. Sal.

Similar names. Salzer's Sixty Day.

Small Queen. Por S&R. For similar names see *Queen.*

Small Silverskin. *RE* SB. For similar names see *Silverskin.*

Seedsmen's synonyms. *Paris White Pickling*, Neb.

Small White Barletta. For similar names see *Adriatic Barletta.*

Small White Nocera. RE Sim. For similar names see *White Nocera.*

Southport Blood Red Globe. Vau. For similar names see *Red Globe.*

Southport Early Red Globe. Crs Fmr Gls Ggy Hrs HP Vk.

Similar names. See *Red Globe.*

Southport Globe. Brk Thm. For similar names see *Red Globe.*

Southport Large Early Red Globe. M&S. For similar names see *Red Globe.*

Southport Large Red Globe. Alr Brd *Bel CE* Evr H&C J&S JL Neb Nol Old Ree SC S&O Sox Spf S&W Vl Vk Wll Y&H.

Similar names. See *Red Globe.*

Southport Large White Globe. *Bel* J&S *Jns* M&S HP Sie Vl Y&H.

Similar names. See *White Globe.*

Southport Large Yellow Globe. Evr Fst J&S M&S Nol HP *Vau* Y&H.

Similar names. See *Southport Yellow Globe.*

Southport Late Red Globe. Ggy. For similar names see *Red Globe.*

Southport Red. Thm. For similar names see *Red Globe.*

Southport Red Globe. Agn Bai Btl Bow Bgg Bgs Brn Buc Bui Brr Brw C&J CE *Chl* EBC C&B CF Cox Dlw Drr Ebe RE Fer Frd Gra Grw TG Hns Ham Hrn Hen Hse H&P Iow Jns Ken Kos Kra *Lam* Lan Lnr LB Loh Mnd Mgd Mau May Mic Mhl Mls Mrs Mzy Nef NK Pac Pg *Ptt* Qkr Raw Roc Roh Rs RP Sim Stw TB *Tpk* Trm *Vl Wat Wea* Web W&D Wdr Yng.

Similar names. See *Red Globe.*

Seedsmen's synonyms. *Large Red Globe*, Bng.

Southport White Globe. Agn Alr Brt Bkt Bgg Bdg Bgs Bri Bui Brr Brw C&J CE Chl EBC Cle C&B CF *Cox* Dlw Drr Ebe Emr *RE* Evr Frd Gra Gng Ggy Grw TG Hrn Hrs Hen *H&C* Hop Hse MWJ Jns Kos Kra Lan Lnr *LB* Mnd Mgd Mau *May* McK Mic Mhl Mls Mrs Mzy Nef JMP Pir Prn Ptt Poo Raw Ren Ree Roh Rs RP *Sal* S&O Sim Sox Spf SB Stw S&H Tat Tem Tnb Vau Vk Wat Web W&D Wyg.

Similar names. See *White Globe.*

Seedsmen's synonyms. *White Globe*, Fer Pg.

Southport Yellow Globe. Agn Brd Bkt Bow Bgs Bui Brr Brw C&J CE EBC Cle C&B CF Cox Cur Dlw Drr Fqr Fer Frd Gra Gng Ggy Grw TG Hns Ham Hen Hse H&P *MWJ* Jns Koe Lam Lan *LB* Lnr Mnd Man Mas Mau JMM McK May Mhl Mrs Mzy NK *Pg* Ptt Pri Ren Rce Roc Roh Rs *Sal* Shm Sim Sox SB Tem Thm Thb Vl Vau Vk *Wat* Wdr Yng.

Similar names. Hammond's Southern Yellow Globe, Henderson's Southport Yellow Globe, Yellow Globe, Leonard's Yellow Globe, Spaller's Yellow Oval Globe, Michigan Yellow Globe, Hammond's Michigan Yellow Globe, Ohio Yellow Globe, Early Italian Yellow Globe, Large Yellow Globe, Improved Large Yellow Globe, Southport Large Yellow Globe, Chicago High Yellow Globe.

Spaller's Yellow Oval Globe. Ebe. For similar names see *Southport Yellow Globe.*

Spanish King. Alx Brt Bkt *Bcl* Bow Bng Bui Cle D&H Evr Ger GH Iml Kg Kos *Lnr* Liv May Nk RP Spf SB Tat TB Trm Web Wd WS.

Similar names. Mammoth Spanish King. See also *Silver King, Copper King.*

Seedsmen's synonyms. *Giant Yellow Rocca,* Bui Bur DD Web. *Mammoth Prize Taker,* Ger. *Prize Taker,* Alx Bkt Bow D&H RP Spf, etc.

Steele-Briggs' Giant Yellow. Entered as *Giant Yellow.*

Straw-Colored. Vin.

Seedsmen's synonyms. *Yellow Dutch.* Vin.

Sultan. May OV *Tpk.*

Similar names. May's Sultan.

Tait's Extra Early White Queen, Tait's Opal. Entered as *Extra Early White Queen* and *Opal.*

Thompson's Creole. Entered as *Creole.*

Thorburn's Excelsior White Pickling. Entered as *Excelsior White Pickling.*

Top. Brk Bdg.

Tripoli Giant Yellow Rocca. Gng. For similar names see *Giant Rocca.*

Up-to-Date Yellow Globe Danvers. D&H. For similar names see *Yellow Danvers.*

Vaughan's Early White Pickling, Vaughan's Ideal White Globe. Entered as *Early White Pickling* and *Ideal White Globe.*

Wampum. Buc Roc.

Similar names. Buckbee's Wampum.

Welsh. Gra Kei Sim Thr.

Similar names. Red Welsh, White Welsh.

Seedsmen's synonyms. *Large French,* Sim.

White. CA Hnt Lan Mas Mhl M&S.

Similar names. White Mildness.

Seedsmen's synonyms. *Silverskin,* CA Mas Mhl.

White Adriatic. Cle. For similar names see *Adriatic Barletta.*

Seedsmen's synonyms. *White Barletta,* Cle.

White Adriatic Barletta. *CE* DD J&S Kra Raw Rce Shm Sie.

Similar names. See *Adriatic Barletta.*

White Barletta. Brd Btl Bru Brb CF Cox CA Drr Drw Fle Ham Hrn Ken Lnr LB JL Mau May JMM Mhl MV NK Sim *Sox TB* Vau.

Similar names. See *Adriatic Barletta.*

Seedsmen's synonyms. *Earliest White Queen,* Mau. *White Adriatic,* Cle. *White Queen,* Vk Yng.

White Bermuda. Alx Btl Bkt Blg Bou Bui Cam *CE* Cle Cox Crs Drr Eic GH Gfg G&T Grw Hst Iow MWJ J&M Kei Kg Lan *Lnr* Liv Mau May NK Pir Raw Rce Rt *Sox* Stk Tex Thm Thr W&D *Wer Wlt* Wd *WS.*

Similar names. Pure White Bermuda, Large White Bermuda, White Wax Bermuda, Improved White Bermuda, Flat White Bermuda.

Seedsmen's synonyms. *Canary Island,* Iow.

White Bunch. *Cur* Hen J&S Poo Thr W&D.

Similar names. Henderson's White Bunch, Philadelphia Early White Bunch, Winter White Bunch.

Seedsmen's synonyms. *Italian Silverskin*, Thr.

White Dutch. Ggy *Nol.*

Similar names. Campbell's White Dutch Winter, White Dutch Winter, Hard Round White Dutch, Round White Dutch Pickling, Early Hard Round White Dutch.

White Dutch Winter. Y&H. For similar names see *White Dutch.*

White El Paso. Shw. For similar names see *El Paso.*

White Garganus. Hrn Nef Spf. For similar names see *Giant White Garganus.*

Seedsmen's synonyms. *Mammoth Silver King*, Hrn Spf. *Silver King*, Nef. *White Mammoth Silver King*, Pnt.

White Globe. Anb Bai Brd Btl Bow Brk Brn Bru Buc Chl Col Cox Crs Del DD Drw Elt RE Ewg Fmr Fqr Fst Fer *Fld* Ger Gls GN Gry Hns Ham Hrv Ken Lam Lnr LB Loh Lon Man May JCM McM NK Old Pg Pks Pir Ptt Por Pot Pri Sal S&R S&F Shm Sie Trm T&B Vl Vin Wea Wll.

Similar names. Hammond's White Globe, Leonard's White Globe, Vaughan's Ideal White Globe, Ideal White Globe, Minnesota White Globe, Northrup, King & Co.'s Minnesota White Globe, Large White Globe, California Early White Globe, Early Italian White Globe, Peerless White Globe, Southport White Globe, Southport Large White Globe, Henderson's Southport White Globe.

Seedsmen's synonyms. *Southport White Globe*, Fer Pg.

White Italian Tripoli. Bdg Cle Thm. For similar names see *Giant White Tripoli.*

White Lisbon. Hns Ren.

White Madeira. M&S.

White Mammoth Flat. Mnd.

White Marzajola. Shw Thr. For similar names see *Neapolitan Marzajola.*

Seedsmen's synonyms. *Italian May*, Shw.

White Mexican. Shm. For similar names see *Large Mexican.*

White Mildness. Sal. For similar names see *White.*

White Multiplier. Brk Bdg Buc Bur Ham M&S Spf Tem.

Similar names. Yellow Multiplier.

White Nocera. Kei.

Similar names. Early White Nocera, Small White Nocera.

White Pearl. Bgs Cle Dlw Drr Drm Ggy G&T *Kg* Man May *Pnt* Rce Shm Sim Thm Thr Wer *Wlt.*

Similar names. See *Early White Pearl.*

White Philadelphia. Cle Ggy.

White Pickling. Alr Bri *CE* Col Ham Hrv Hse Mls Neb NK OV Sal.

Similar names. Alneer's White Pickling, Rapid White Pickling, Bell's Rapid White Pickling, Mills' White Pickling, Nebraska Seed Co.'s White Pickling, Northrup, King & Co.'s White Pickling, Rice's White Pickling, Salzer's White Pickling, Vaughan's Early White Pickling, Early White Pickling, Covent Garden White Pickling, Excelsior White Pickling, Thorburn's Excelsior White Pickling, English White Pickling, Paris White Pickling.

Seedsmen's synonyms. *Hard Round Silverskin*, Col.

White Portugal. Agn Alr Anb Ar Bai Brd Brt Bkt Ber Bow Bgg Brk Bdg Bgs Brn Bru Bur Brr C&J CE EBC Cle C&B Col CF Cox Crg Crs Dlw Drr Ebe Elt Emr Evr Ewg Fmr Fqr Fst Fax Fer Fld Frd Ger Gls GH Gra Ggy Gry Grw TG Hde Hrm Hrn Hrs Hrv Haw Hen H&C Hlm H&P Iml Iow RHJ J&S Jns Kei K&W Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Mgd May JCM JMM Mls Min M&S Mrs Mzy Nef *Nol* NI NK OV Old *Pac* HP Pir Prn Pnt Ptt Poo Por

Pot Pri Pug Rtk Raw Rce Roc Roh Rs RP S&R SC S&F S&B Shw S&O Sox Spf SB S&W Tat Tem Tex Thm AGT Til Tpk Trm T&B Vl Vau Vk Vin Wea Web W&D *Wer* Wll Wdr Wyg.

Similar names. Henderson's White Portugal, Large Portugal, Large White Portugal, White Portugal Silverskin, Flat White Portugal.

Seedsmen's synonyms. *Silverskin*, Hen Fld Drr Liv Mau Ptt, etc. *Philadelphia White Silverskin*, J&S M&S. *White Silverskin*, Hlm Buc Bur DD Evr Vl, etc. *White Skin*, Lea. *American Silverskin*, Bow Fer Lam Vau Vk Wyg, etc. *Philadelphia White*, Mau. *New England White*, Bdg.

White Portugal Silverskin. Bri. For similar names see *White Portugal*, *Silverskin*.

White Prize Winner. J&S. For similar names see *Prize Taker*.

White Queen. Alr Ar Brk Bng *LB CE* Crs DD Drr Elt Evr Fmr *Gls* Hrm H&P *RHJ* J&S Kos Kra *Lam* Lnr Liv May JCM McK Mls Neb NK Pac HP Pnt Ren Rce S&O Shm Sim Stk SB Thm Thr *Vl* Vau Vk *Wea* Web Wer Wd Wdr WS Yng.

Similar names. See *Queen*.

Seedsmen's synonyms. *Extra Early Barletta*, Hlm. *Extra Early White Barletta*, Qkr. *White Barletta*, Vk Yng.

White Rocca. Fst. For similar names see *Giant Rocca*.

Seedsmen's synonyms. *Silver Ball*, Fst.

White Silverskin. Alx Blg Bng Buc Bui Bur *Cam* C&B DD Ebe Ebr Evr Fmr Fst Gdn Hns H&C Jac MWJ J&M Ken Lea LB Mns McM *Mic* Mrs NI Pg JMP Roc Shw S&H Vl Wer Wll.

Similar names. See *Silverskin*.

Seedsmen's synonyms. *Portugal*, Lea Hlm. *White Portugal*, Buc Bur DD Evr Vl Wll.

White Spanish. May.

Similar names. Moore & Simon's Early White Spanish.

White Tripoli. Anb Bri Lnr May Sim Thr. For similar names see *Giant White Tripoli*.

Seedsmen's synonyms. *Mexican*, Sim.

White Victoria. *CE* Drr Frd *Lnr* Liv Mls Ren Rt Sim Thr Vau.

Similar names. Mammoth White Victoria, Giant White Victoria.

White Wax. Gfg. For similar names see *Crystal Wax*.

White Wax Bermuda. Lan Thr. For similar names see *White Bermuda*.

White Welsh. Bru RE Ren. For similar names see *Welsh*.

Will's Golden Queen. Entered as *Golden Queen*.

Winter White Bunch. Drr. For similar names see *White Bunch*.

Yellow Cracker. *Brd* Cox Fqr H&P *Lam* Mrs *Rce* Thr *Vl* Vau.

Similar names. Rhode Island Yellow Cracker, Early Yellow Cracker, Extra Early Yellow Cracker, Leonard's Extra Early Yellow Cracker, Red Cracker.

Seedsmen's synonyms. *Early Yellow Flat*, Fqr.

Yellow Danvers. Bai Bak Brd Blg Bow Bdg Bgs Bri Bng Bur CE Chl CF Crg Crs Dlw Drw Eas Ebe Ebr Fax Fer GH GN Ggy TG Ham Haw Hbt Hnt Kos LB Loh Mnd Man *May* JMM Mic Mhl Mls Min MV Nol NI NK *Pac* Pks JMP Pir Ptt Por Pot Pug Ren Rce Roc RP S&R S&O Sie S&W Thm Thr Tpk Trm T&B Vin Wat Wdr Yng.

Similar names. Medium Yellow Danvers, Rennie's Yellow Danvers, Bloomsdale Danvers, Bloomsdale Early Danvers, Early Danvers, Colorado Yellow Danvers, Oregon Yellow Danvers, Michigan Globe Danvers, Ohio Globe Danvers, Philadelphia Yellow Globe Danvers, Yellow Globe Danvers, Alneer's Yellow Globe Danvers, Barnard's Yellow Globe Danvers, Breck's Yellow Globe Danvers, Buist's Yellow Globe Danvers, Germain's Yellow Globe Danvers, Hammond's Yellow Globe Danvers, Henderson's Yellow Globe Danvers, Maule's

Yellow Globe Danvers, Moore & Simon's Yellow Globe Danvers, Improved Yellow Globe Danvers, Holmes' Improved Yellow Globe Danvers, Price & Reed's Improved Yellow Globe Danvers, Salzer's Neckless Yellow Globe Danvers, Large Yellow Globe Danvers, Early Yellow Globe Danvers, Up-to-Date Yellow Globe Danvers, Round Yellow Danvers, Buckbee's Round Yellow Danvers, Early Round Yellow Danvers, Flat Danvers, Flat Yellow Danvers, Early Flat Yellow Danvers, Large Flat Yellow Danvers, Oregon Danvers Long Keeper, Buckbee's Golden Globe Danvers, Early Red Globe Danvers, Extra Early Red Globe Danvers, Red Globe Danvers, Challenge Yellow Globe Danvers.

Seedsmen's synonyms. *Long Keeper*, LB.

Yellow Dutch. Brd Bkt Bdg Bri Bru Buc Bui Bur Cle Cox Crs CA D&H DD Elt Frd Gls GH TG Hen Hnt H&P RHJ Lan Lnr JL Mgd PM Mau JMM Mhl Mls M&S Mrs Nef Nol NK OV HP JMP Ptt Pri Roc Roh RP SC Sie Sim Sox Tem Thr Til Trm *Vl* Vin *Wat* W&D Wdr Yng Y&H.

Similar names. Large Yellow Dutch, Philadelphia Yellow Dutch, Flat Yellow Dutch.

Seedsmen's synonyms. *Large Yellow Strasburg*, Sim. *Philadelphia Yellow Strasburg*, M&S. *Yellow Strasburg*, Buc Bui Bur Mhl Tem Thr, etc. *Strasburg*, Bkt Brd Cox Frd JL Mls, etc. *Straw-Colored*, Vin.

Yellow Egg. M&S.

Yellow Globe. Btl Brk Bru Crg Elt *Hst* Fax Lnr *Pac* HP Pne Ptt Roc *Sie*.

Similar names. See *Southport Yellow Globe*.

Yellow Globe Danvers. Agn Alx Alr Anb Ar Bai *Bak* Brd Brt Btl Bkt Bel Ber Bow Bgg Brk Bgs Brn Bru Bng Buc Bui Brb Brr Brw C&J *Cam* CE Chl EBC Cle C&B Col CF Cok Cox Crs Cur CA Dlw D&H Del DD D&C Drr Drw Drm Dun Eas Elt Emr RE Evr Ewg Fmr Fqr Fst Fer Fld Fle Frd Ger Gls GH Gra Gng *Ggy* Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hst Haw Hen H&C Hop Hse Hnt H&P Iml Iow Jer MWJ RHJ J&M Jns Kei K&W Ken K&F Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Lon Mnd Mgd Man PM Mns Mas Mau May JCM JMM McK McM Mel Mls MV M&S Mrs Mzy Neb Nef NI NK OV Old Pac Pg Pir Prn Pne Pnt Ptt Poo Por Pri Pug Qkr *Rtk* Raw Ree Ren Rce Rim Roc Roh Rt Rs RP S&F S&B Shw S&O Sox Spf Stk SB Stw S&H S&W Tat Tem Tex TB Thr Thb *Tlh Tpk* Trm T&B Vl Vau Vk *Wat* Wea Web W&D Wll Wd WS Wyg Y&H.

Similar names. See *Yellow Danvers*.

Yellow Globe Spanish. Ebr Ken Nol Qkr S&W Thr.

Similar names. See *Large Yellow Spanish*.

Seedsmen's synonyms. *Prize Taker*, Brk Ebr Ken Qkr Nol S&W Thr.

Yellow Multiplier. Buc. For similar names see *White Multiplier*.

Yellow Prize Taker. Bui *May*. For similar names see *Prize Taker*.

Yellow Rocca. Lnr. For similar names see *Giant Rocca*.

Yellow Strasburg. Agn Bai Bkt *Bow* Bdg Bri Brn Buc Bui Bur Cle CF Cox Crg Crs Cur CA D&H DD Drr Elt Fmr Frd Gls GH Gra Ggy Hen H&P Kra Lam Lan *Lnr* JL Loh Mnd Mgd PM Mns *Mau* May JMM Mhl Mls Min MV M&S Mrs Nef Nol NK OV Pac HP JMP Ptt *Por* Rce Roc Roh *S&R* SC Shw Shm Sie Sox Tem TB Thr Til *Tpk* Trm Vau Vk Web Wdr Yng.

Similar names. Philadelphia Yellow Strasburg, Large Yellow Strasburg, Bloomsdale Large Yellow Strasburg.

Seedsmen's synonyms. *Dutch*, Buc Bui Bur Cur Mhl Thr, etc. *Large Yellow*, Ggy. *Yellow Dutch*, Mau Sie Vau.

ORACH.

(Also known as French Spinach.)

Orach. Bdg Mnd Sim.

Dark-Red. Ken.
Large Mountain. Sim.
Red. Thr.
White. Thr.

OYSTER PLANT. (See SALSIFY.)

PARSLEY.

Alneer's Emerald Beauty. Entered as *Emerald Beauty.*
Arlington Double Curled. Raw. For similar names see *Double Curled.*
Beauty. Buc Roc.
 SIMILAR NAMES. Beauty of the Parterre, Emerald Beauty, Alneer's Emerald Beauty.
Beauty of the Parterre. Bgs *CE* Chl *Cox* Crs Fqr *Gra* Ggy Mnd Ree Thr Til Vk.
 SIMILAR NAMES. See *Beauty.*
 SEEDSMEN'S SYNONYMS. *Emerald*, Vk.
Buist's Garnishing. Bui. For similar names see *Myatt's Garnishing.*
Carter's Champion Moss Curled, Carter's Covent Garden Garnishing, Carter's Fern Leaved, Carter's Perpetual. Entered as *Champion Moss Curled, Covent Garden Garnishing, Fern-Leaved,* and *Perpetual.*
Champion. *S&W* Vau. For similar names see *Champion Moss Curled.*
Champion Curled. Y&H. For similar names see *Champion Moss Curled.*
Champion Double Moss Curled. Sie.
 SIMILAR NAMES. See *Champion Moss Curled, Moss Curled.*
Champion Dutch Erfurt. M&S. For similar names see *Champion Moss Curled.*
Champion Moss Curled. Anb Brd Brt *Bil* Bkt Ber Bgg Brk Bgs Bri Brn Bru Bng Bui Brw C&J Cam CE Cle Crs Cur D&H DD Drr Ebe Elt Emr RE Fmr Fqr Fax Fer Frd Ger Gls *Gdn* GH Gra Ggy Grw TG Hrn Hrs Hrv Haw Hen Hlm Iow J&S Jns *Kei* Kg Kos Kra Lam Lan Lnr LB Liv JL Loh Man Mns Mas Mau May JCM *McK* Mic Mhl Mls MV Neb Nef Nol NK OV Old Pac Pg Pks HP Pir Prn Ptt Por Pot Raw Ree Ren Ree Rs RP S&R S&F S&O Sie Sox Spf SB S&H Tem AGT *Tpk* Vl Vk Web Wll Wlt Wd Wdr WS Yng.
 SIMILAR NAMES. Champion Curled, Carter's Champion Moss Curled, Champion Double Moss Curled, Moss Curled, Early Moss Curled, Double Moss Curled, Triple Moss Curled, Extra Moss Curled, Dark Moss Curled, Extra Dark Moss Curled, Extra Fine Moss Curled, Champion Dutch Erfurt, Champion.
 SEEDSMEN'S SYNONYMS. *Covent Garden Garnishing*, Sim. *Fern-Leaved*, Por S&R.
Chappell's Matchless. Entered as *Matchless.*
Common. CF.
 SEEDSMEN'S SYNONYMS. *Plain*, CF.
Covent Garden. Bui Ewg.
 SIMILAR NAMES. Double Curled Covent Garden, Covent Garden Garnishing, Carter's Covent Garden Garnishing.
 SEEDSMEN'S SYNONYMS. *Double Curled*, Bui.
Covent Garden Garnishing. Ggy *Kei* Sie.
 SIMILAR NAMES. See *Covent Garden, Myatt's Garnishing.*
 SEEDSMEN'S SYNONYMS. *Champion Moss Curled*, Sim.

Curled. Bdg Buc CF Crg CA Evr Hnt Lan Pug Shw.

SIMILAR NAMES. Extra Curled, May's Extra Curled, Market Gardener's Extra Curled, Giant Curled, Half Curled, Perfection Curled, Dwarf Curled, Extra Early Dwarf Curled, Extra Dwarf Curled.

SEEDSMEN'S SYNONYMS. *Double*, CF Eic Pug Shw.

Curled Emerald. Cam GH J&S. For similar names see *Emerald.*

Curled Perpetual. Ewg. For similar names see *Perpetual.*

Dark Double Curled. Thm. For similar names see *Double Curled.*

Dark Moss Curled. Mgd. For similar names see *Moss Curled.*

Dobbie. *Fqr* Gra Raw.

Double Curled. Anb Brd Bgg Bdg Bgs Bui Brb Bur Brr CE Cle CF Cox CA Drm Dun RE Evr Fmr GH TG Hde Hrm Hrn Hly Hlm Hnt H&P Iml J&M Kg Kra Lan Lea Lnr Liv JL *Mgd* PM Mau JCM McM Min MV Mrs Neb NI JMP Pnt Pug Ree Rce Roc Rt SC S&F S&B Shw S&O Sie Spf Stk Stw S&H TB Thb Til Trm T&B *Vl* Vau Wat Wer *Y&H.*

SIMILAR NAMES. Arlington Double Curled, Extra Double Curled, Improved Double Curled, Large Double Curled, Dark Double Curled, Fine Double Curled

SEEDSMEN'S SYNONYMS. *Curled*, CF Eic Pug. *Extra Curled*, Pnt. *Fine Curled*, Evr Stw. *Covent Garden*, Bui. *Myatt's Garnishing*, Trm.

Double Curled Covent Garden. Mhl. For similar names see *Covent Garden.*

Double Curled Dwarf. *DD.*

Double Moss Curled. Alr Bou. For similar names see *Moss Curled.*

Dreer's Dwarf Perfection. Drr.

SIMILAR NAMES. Weaver's Dwarf Perfection.

Dreer's Green Summer. Entered as *Green Summer.*

Dwarf Curled. GH Gra Ggy Gry Hop Sim. For similar names see *Curled.*

Dwarf Extra Curled Emerald. *CE.* For similar names see *Emerald.*

Dwarf Extra Curled Perpetual. Bui Drr. For similar names see *Perpetual.*

Dwarf Perfection. *Gra.*

Early Moss Curled. Dlw. For similar names see *Moss Curled.*

Early Turnip-Rooted. Dlw. For similar names see *Turnip-Rooted.*

Elliott's Emerald. Entered as *Emerald.*

Emerald. Btl Bkt Bel Buc Bur Brr Cle Col Cox Del D&C Elt Frd Gdn Grw TG Ham Hen H&C J&S Lan Mgd PM Mns Mls M&S NK Prn Roc Vk Yng.

SIMILAR NAMES. Emerald Gem, Alneer's Emerald Gem, Elliott's Emerald, Henderson's Emerald, Curled Emerald, Extra Curled Emerald, Dwarf Extra Curled Emerald, Green Curled Emerald, Emerald Beauty.

SEEDSMEN'S SYNONYMS. *Beauty of the Parterre*, Vk. *Extra Curled Dwarf*, Buc Bur Cox Frd J&S M&S, etc.

Emerald Beauty. Alr. For similar names see *Emerald*, *Beauty.*

Emerald Gem. MWJ Lan Rim Sie. For similar names see *Emerald.*

Evergreen. W&D.

Exquisite. Grw *Liv.*

SIMILAR NAMES. Taber's Exquisite.

Extra Curled. Bru Brb C&J Cok *DD* Gra Hrv RHJ *Kei* Mnd May OV Pir Pnt Thr *Tpk* Wea.

SIMILAR NAMES. See *Curled.*

SEEDSMEN'S SYNONYMS. *Double*, Pnt.

Extra Curled Emerald. Drm Hlm Liv. For similar names see *Emerald.*

Extra Curled Perpetual. Mhl. For similar names see *Perpetual.*

Extra Dark Moss Curled. Bur Hbt Jer PM Qkr Shw.

SIMILAR NAMES. See *Moss Curled.*

Extra Double Curled. Alx Bai Bng Chl Crs Cur Ebe Hrs Hen J&S K&W Ken Mnd Mas JMM Mzy Nol NK HP Poo Pri Rs S&W Tat W&D Y&H.

SIMILAR NAMES. See *Double Curled.*

Extra Dwarf Curled. Brt Bkt Buc Bur C&B Cox Cur DD D&C Fst Frd G&T TG Ham J&S PM *Mns* Mel M&S Qkr Roc Yng.

SIMILAR NAMES. See *Curled.*

SEEDSMEN'S SYNONYMS. *Emerald*, Buc Bur Cox D&C Ham Roc, etc.

Extra Early Dwarf Curled. Vl. For similar names see *Curled.*

Extra Fine Curled. Pne Raw. For similar names see *Fine Curled.*

Extra Fine Moss Curled. Shm. For similar names see *Moss Curled.*

Extra Moss Curled. Hst Pug S&W W&D. For similar names see *Moss Curled.*

Extra Triple Curled. Mrs. For similar names see *Triple Curled.*

Fern-Leaved. Alr Bai Bow Bgg Brk Bgs Bru Bng Bui Brb Bur CE C&B Col Crs Cur Dlw D&H DD Drr Ebe Elt Emr RE Evr Fmr Fqr Fst Frd GH Ggy Gry TG Hrm Hbt Hop Hse Kei K&W Kos Lam Lan Lnr Liv JL *Man* Mas Mau May Mhl MV Mzy Nef OV Pac Pg Pks JMP Prn Ptt Por Pot Pri Pug Raw Ree Rce Roc Sal S&R S&F S&O Sox S&W Tat Tem Thr Tpk Vl Vau Vk *Wat* Wea W&D Wdr Yng.

SIMILAR NAMES. Carter's Fern-Leaved, May's Fern-Leaved, Sheep Field Fern-Leaved.

SEEDSMEN'S SYNONYMS. *Champion Moss Curled*, Por S&R. *Moss Curled*, Bow.

Fine Curled. Ar Lan Rt Stw.

SIMILAR NAMES. Extra Fine Curled.

SEEDSMEN'S SYNONYMS. *Double.* Evr Stw.

Fine Double Curled. Brd Bur *CE Liv Mns Wat.* For similar names see *Double Curled.*

Fine Triple Curled. Fle Pg Pnt Sim SB Tpk Vk Vin.

SIMILAR NAMES. See *Triple Curled.*

French Monitor. M&S.

SEEDSMEN'S SYNONYMS. *Giant*, M&S.

Garnishing. *Eic* Stk. For similar names see *Myatt's Garnishing.*

German. Spf.

SEEDSMEN'S SYNONYMS. *Turnip-Rooted*, Spf.

Giant. M&S.

SEEDSMEN'S SYNONYMS. *French Monitor*, M&S.

Giant Curled. Bel. For similar names see *Curled.*

Green Curled Emerald. Shm. For similar names see *Emerald.*

Green Summer. Drr.

SIMILAR NAMES. Dreer's Green Summer.

Half Curled. Drr. For similar names see *Curled.*

Hamburg Large Turnip-Rooted. Hse Ken Rce.

SIMILAR NAMES. See *Turnip-Rooted.*

Hamburg Turnip-Rooted. Brd Bkt Brk Bgs Bri Bur *Cam CE* Cle Crs Cur DD Ebr Elt Fqr Fer Frd Ger GH Grw TG Hrn Hen H&P Iow J&S Koe Kos Kra Lam Lan Lnr LB Liv Mnd May MV Mzy Neb Nef NI NK OV Pks HP Pnt Por RP S&R S&F Sie Sox *S&H* Thr Til *Tpk* Vl Vau Vk Wea Web W&D Wer.

SIMILAR NAMES. See *Turnip-Rooted.*

Henderson's Emerald. Entered as *Emerald.*

Holmes' Ideal. Hlm.

Improved Double Curled, Improved Garnishing. Entered as *Double Curled* and *Garnishing.*

Large Double Curled. Gdn Jac. For similar names see *Double Curled.*

Large Leaf Garnishing. Gdn Jac. For similar names see *Myatt's Garnishing.*

Large Turnip-Rooted. Cur Ken RP. For similar names see *Turnip-Rooted.*

Seedsmen's synonyms. *Hamburg*, Cur Ken RP.

Late Turnip-Rooted. Dlw. For similar names see *Turnip-Rooted.*

Long Turnip-Rooted. Til. For similar names see *Turnip-Rooted.*

Market Gardener's. Bri *Eic* Iow J&S *Kei* M&S Nol.

Market Gardener's Extra Curled. Lan. For similar names see *Curled.*

Market Gardener's Triple Curled. Blg. For similar names see *Triple Curled.*

Matchless. Fqr.

Similar names. Chappell's Matchless.

May's Extra Curled, May's Fern-Leaved. Entered as *Extra Curled* and *Fern-Leaved.*

Moss Curled. Ar Bai Bak Btl Bow Buc Brr CF Del Drw Eas Ebr Ewg Fld Gng GN Ggy Gry Gfg G&T Hns Hly Hop Hnt J&M Ken Koe Lan JMM Min M&S Mzy Mrs *Pnt* Pri Roe Sal SC Stw Tat Thm Thr Til Trm Wea Wyg.

Similar names. Early Moss Curled, Double Moss Curled, Triple Moss Curled, Extra Moss Curled, Dark Moss Curled, Extra Dark Moss Curled, Extra Fine Moss Curled, Champion Moss Curled, Carter's Champion Moss Curled, Champion Double Moss Curled.

Seedsmen's synonyms. *Fern-Leaved*, Bow. *Myatt's Garnishing*, SC. *Triple Curled*, Btl Hns Koe Trm.

Myatt's Garnishing. Crs Dlw DD Fer Fle *Gls* Ggy *Kei* K&F LB Pks Pnt SC Thm Tpk Trm Vk.

Similar names. Sutton's Garnishing, Buist's Garnishing, Improved Garnishing, Large Leaf Garnishing, Covent Garden Garnishing, Carter's Covent Garden Garnishing, Garnishing.

Seedsmen's synonyms. *Double Curled*, Trm. *Moss Curled*, SC. *Triple Curled*, DD Dlw Fer Lam LB Pks, etc.

Perfection Curled. Mhl. For similar names see *Curled.*

Perpetual. Elt *Ewg* Fqr Ggy.

Similar names. Carter's Perpetual, Curled Perpetual, Extra Curled Perpetual, Dwarf Extra Curled Perpetual.

Plain. Alx Bak Brd Bkt Bgs Bri Bui Bur C&J *CE* Cle Col CF Crg Crs Cur Dlw Del DD Drm Ebr Eic Elt Emr Ewg Fmr Fqr Fer *Gdn* GH Gra Ggy TG Hde Hrv Hst Hen H&C Hlm Hnt H&P MWJ J&S Ken Kg Kos Lan Lnr LB Liv Loh PM Mau May JCM McM Min M&S Mzy Neb Nol NK OV HP Pnt Ptt Raw Rce Sal SC S&F Shw Sie Stk Stw S&W Tat Tex TB Thr Til *Tpk* Vl Vau Vin Wea W&D Wer Wd Wdr WS Yng.

Seedsmen's synonyms. *Common*, CF. *Single*, Bui Bur Eic HP Sie Shw, etc.

Sheep. Gra.

Similar names. Sheep Field Fern-Leaved.

Sheep Field Fern-Leaved. M&S. For similar names see *Sheep, Fern-Leaved.*

Single. Bak Brd Bui Bur Eic Fmr GH Ggy J&S Lan Loh PM McM Min M&S HP Shw Sie Stw TB Vl Vin Wd Yng.

Seedsmen's synonyms. *Plain*, Bui Bur Eic J&S Stw Vin, etc.

Smooth-Leaved. Ewg *Gdn.*

Sutton's Garnishing. Mhl. For similar names see *Myatt's Garnishing.*

Taber's Exquisite. D&H. For similar names see *Exquisite.*

Triple Curled. Btl Bow Bgs CF Dlw DD Ewg Fqr Fer Gng Hns Hde Jns Koe Lam LB Loh Mns *McK* Pks Por Ren S&R S&O Tex Thm Trm.

Similar names. Market Gardener's Triple Curled, Fine Triple Curled, Extra Triple Curled.

Seedsmen's synonyms. *Moss Curled*, Btl Hns Koe Trm. *Myatt's Garnishing*, Dlw DD Fer Lam LB Pks, etc.

Triple Moss Curled. Bel Hrs. For similar names see *Moss Curled.*

Turnip-Rooted. Brk Bur *Cam* C&B DD Ebr Elt Fqr Fer Frd Ger GH TG Hrn *Hrv* Hen H&P Koe Kos Lam Lan LB Liv Mnd MV Mzy Neb Nef NK Pks HP Pnt Por Sal S&R S&F Sie Sox Spf Thr Vl Vk Wea W&D Wer Yng.

SIMILAR NAMES. Early Turnip-Rooted, Late Turnip-Rooted, Long Turnip-Rooted, Large Turnip-Rooted, Hamburg Large Turnip-Rooted, Hamburg Turnip-Rooted.

SEEDSMEN'S SYNONYMS. *German*, Spf. *Hamburg*, Bur Drr Fqr Fer Hen J&S, etc.

Weaver's Dwarf Perfection. Wea.

SIMILAR NAMES. See *Dreer's Dwarf Perfection.*

PARSNIP.

Abbott. Ebr Hrm K&W Rce S&F Thr.

SIMILAR NAMES. Improved Abbott, Abbott's Hollow Crown, Abbott's Improved Hollow Crown, Improved Abbott Long Smooth, Abbott Long Smooth.

SEEDSMEN'S SYNONYMS. *Long Smooth*, Dun Hrm K&W.

Abbott's Hollow Crown. Eas RE.

SIMILAR NAMES. See *Abbott, Hollow Crown.*

Abbott's Improved Hollow Crown. Ggy.

SIMILAR NAMES. See *Abbott, Hollow Crown.*

Abbott's Long Smooth. Brb Dun. For similar names see *Abbott.*

Arlington Long Smooth. Raw *Rs.* For similar names see *Long Smooth.*

Arlington Long White. Fqr Gry S&F. For similar names see *Long White.*

Arlington Smooth Long White. EBC. For similar names see *Long White.*

Bloomsdale. Ar Dlw Lan Mel Mic Rim Stw.

SIMILAR NAMES. Bloomsdale Half Long.

Bloomsdale Half Long. MWJ. For similar names see *Bloomsdale.*

Breck's Market Garden. Brk. For similar names see *Market Gardener's.*

Bruce's Improved Hollow Crown. Entered as *Hollow Crown.*

Brunning's Hollow Crown. Entered as *Hollow Crown.*

Buckbee's Sugar. Buc. For similar names see *Sugar.*

Burr's Mammoth. Brr.

Carter's Maltese. Bgs Kei. For similar names see *Maltese.*

Champion Hollow Crown. C&J.

SIMILAR NAMES. See *Cooper's Champion, Hollow Crown.*

Cook's Perfection. Cok.

SIMILAR NAMES. Pearce's Perfection.

Cooper's Champion. Gra.

SIMILAR NAMES. Cooper's Champion Hollow Crown, Champion Hollow Crown.

Cooper's Champion Hollow Crown. Ewg.

SIMILAR NAMES. See *Cooper's Champion.*

Crown. Evr Sal. For similar names see *Hollow Crown.*

Cup. Alr Ar Crs Dlw Lan Mzy Stw TB.

SIMILAR NAMES. Improved Cup, Guernsey Cup.

SEEDSMEN'S SYNONYMS. *Guernsey*, Bdg Crs Mzy. *Hollow Crown*, Ar Bdg Stw. *Improved Guernsey*, Alr. *Long White*, Bdg. *Sugar*, Ar Bdg Stw. *Sugar Hollow Crown*, Dlw Lan.

Delmonico. Sal.

SIMILAR NAMES. Salzer's Delmonico.

Dobbie. Ewg Fqr Gra.

Dutch Large Smooth Long Hollow Crown. Sim.

SIMILAR NAMES. See *Long Dutch, Hollow Crown.*

Early Round. Brd Brk Elt Fqr Gry Hen Mnd NK Pks Ree *Rce* Sim S&W Thr W&D.

Similar names. Round, Early Short Round, Half Long Short Round, Short Round French, Early Scarlet Round French.

Seedsmen's synonyms. *Turnip-Rooted*, Brk.

Early Short Horn. Tem.

Early Short Round. Mau Vk. For similar names see *Early Round.*

Early Short Round French. Bur *Jer May.* For similar names see *Early Round.*

Elcombe's Giant. SB.

Evans' Improved Hollow Crown. Entered as *Hollow Crown.*

Farquhar's Market Model. Fqr. For similar names see *Market Gardener's.*

Guernsey. Alr Bai Brd Brt Btl Bkt Bel Bdg Bui Bur Brr CE Chl Cle Col Crs Cur D&C Drr Drw Eic Fmr Fst Fer Fle Frd GH TG Hns Ham Hrn Hbt Hop Hse *RHJ* J&M Kos Kra Lam Lea Lnr LB JL Mns *May* Mhl Mzy Neb Nef Old Pg Pks Pir Ptt Poo Por Qkr Raw Ree Rce Roc Rt S&R S&O Sim Sox SB S&H Tem Trm Vl Vau Vk Wer Wll WS Wyg.

Similar names. Guernsey Cup, Improved Table Guernsey, Hammond's Improved Guernsey, Improved Guernsey, Long Guernsey, Half Long Guernsey, Table Guernsey.

Seedsmen's synonyms. *Cup*, Alr Bdg Crs Mzy. *Half Long*, Neb Fle Qkr Pks Sim. *Hollow Crown*, Brr CE Fer GH Lam Ptt, etc. *Student*, Bui Drr Mhl Nef. *Sugar*, Bdg. *Sugar Hollow Crown*, WS. *Improved Half Long*, Bur Raw Wll. *Large Sugar*, Iml Liv.

Guernsey Cup. Pri. For similar names see *Cup, Guernsey.*

Seedsmen's synonyms. *Hollow Crown*, Pri.

Hadlock. *LB.*

Half Long. Brw Fld Fle Mau Neb Pks Qkr Sim.

Similar names. Improved Half Long.

Seedsmen's synonyms. *Guernsey*, Neb. *Improved Guernsey*, Fle Qkr Pks Sim Bur Raw Wll. *Intermediate*, McK Ren.

Half Long Guernsey. CF Hrs Y&H. For similar names see *Guernsey.*

Half Long Maltese. Alr GH Liv. For similar names see *Maltese.*

Half Long Short Round. Spf. For similar names see *Early Round.*

Hammond's Improved Guernsey. Entered as *Guernsey.*

Henderson's Hollow Crown. Entered as *Hollow Crown.*

Hollow Crown. Alx Alr Anb Bai Bak Brd Brt Btl Bkt Ber Blg Bow Bgg Brk Bgs Bri Brn Bru Bng Buc Bui Brb Bur Cam CE EBC Cle C&B Col Cok Cox *Crg* Crs Cur CA Dlw D&H DD D&C Drr Drm Ebe Ebr Eic Elt Emr RE Ewg Fmr Fqr Fst Fer Fld Fle Frd Ger Gdn GH Gra Gng Gry Gfg G&T Grw TG Hns Hde Hrm Hrn Hrv Hst Haw Hen Hop Hse Iml Iow Jac Jer RHJ J&M Jns Kei K&W Ken Kg Koe Kos Kra Lam Lan *Lnr* LB Liv JL Loh Lon Mnd Mgd Man PM Mns Mas May JCM McK Mic Mls Min MV Mrs Mzy Neb Nol NI NK OV Old Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr *Rtk* Raw Ree Ren Rce Roc Rs RP S&R SC S&B Shw S&O Shm Sie Sox Spf Stk Stw S&H S&W Tat Tem Tex TB Thm Thr Thb *Tlh* Til Tpk Trm T&B Vl Vau Vin Wat Wea Web W&D Wer Wll Wlt Wd Wdr WS Wyg Yng Y&H.

Similar names. Abbott's Hollow Crown, Brunning's Hollow Crown, Henderson's Hollow Crown, Thorburn's Hollow Crown, Improved Hollow Crown, Abbott's Improved Hollow Crown, Bruce's Improved Hollow Crown, Evans' Improved Hollow Crown, Champion Hollow Crown, Ideal Hollow Crown, Improved Ideal Hollow Crown, Large Hollow Crown, Long Hollow Crown, Improved Long Hollow Crown, Smooth Long Hollow Crown, Improved Smooth Long Hollow Crown, Dutch Large Smooth Long Hollow Crown, White Maltese

Hollow Crown, Improved Crown, Salzer's Crown, Long White Sugar Crown, Crown, Long Smooth Hollow Crown.

SEEDSMEN'S SYNONYMS. *Cup*, Ar Bdg Dlw Lan Stw. *Guernsey*, Brr CE Fer GH LB Wyg, etc. *Guernsey Cup*, Pri. *Ideal*, Bur. *Improved Guernsey*, Iml Liv. *Improved Sugar*, Mhl. *Large Improved Sugar*, HP. *Large Sugar*, Drr Liv JL Mns Neb Pnt, etc. *Long Sugar*, Iow. *Long White*, Bdg. *Long Smooth*, Bur Cur Elt Frd Gry Mls, etc. *Long White Sugar*, Alr Buc. *Sugar*, Alx Bui Col G&T Ken Sie, etc. *Sugar Cup*, TB. *White*, Roc.

Ideal Hollow Crown. J&S M&S. For similar names see *Hollow Crown*.

Improved Abbott, Improved Abbott Long Smooth, Improved Crown, Improved Cup, Improved Guernsey, Improved Hadlock, Improved Half Long, Improved Hollow Crown, Improved Ideal Hollow Crown, Improved Long Hollow Crown, Improved Long Smooth, Improved Long Smooth Hollow Crown, Improved Sugar, Improved Table Guernsey. Entered as *Abbott*, *Abbott Long Smooth*, *Crown*, *Cup*, *Guernsey*, etc.

Intermediate. McK Ren.

SEEDSMEN'S SYNONYMS. *Improved Half Long*, McK Ren.

Large Dutch. Ggy Hrv. For similar names see *Long Dutch*.

Large Hollow Crown. H&C. For similar names see *Hollow Crown*.

Large Improved Sugar. Entered as *Large Sugar*.

Large Smooth Sugar. TG. For similar names see *Sugar*.

Large Sugar. *CE* Cok CA Drr Drm Hde Hse Iml J&S K&F Liv JL Mns Neb Nol HP Pnt Por Rce S&R SC S&B S&O Sox Spf Tex.

SIMILAR NAMES. See *Sugar*.

SEEDSMEN'S SYNONYMS. *Hollow Crown*, Drr Liv JL Mns Neb HP, etc. *Long Smooth Hollow Crown*, Nol J&S. *Improved Guernsey*, Iml Liv.

Large White Sugar. DD May OV *Tpk*. For similar names see *Sugar*.

Leonard's Market Garden. Lnr. For similar names see *Market Gardener's*.

Long Dutch. Bow Tpk.

SIMILAR NAMES. Long White Dutch, Large Dutch, Dutch Large Smooth Hollow Crown.

Long Guernsey. Kei Pac. For similar names see *Guernsey*.

Long Hollow Crown. Bel Gls Hrs H&P Lea *Vl* Vk.

SIMILAR NAMES. See *Hollow Crown*.

SEEDSMEN'S SYNONYMS. *Long White Dutch*, Vk. *Sugar*, Vk.

Long Smooth. Anb Bai Ber *Bgg* Bgs Bur CE C&B CF Cur Del D&C Elt *RE* Fmr Fst Fld Frd GH Gng Gry Hen K&W LB Kos Mgd Man Mas Mau Mls M&S Mrs Mzy Nef NK Prn Pot Pri Pug Qkr Ree S&O S&H Tem Thb T&B Vau Vin *Wat* Wer Wll Wdr Yng.

SIMILAR NAMES. Arlington Long Smooth, Improved Long Smooth, Improved Abbott Long Smooth, Long Smooth White.

SEEDSMEN'S SYNONYMS. *Abbott's Improved*, Dun Hrm K&W. *Hollow Crown*, Bur Cur Elt Frd Gry Mls, etc. *Ideal*, Bur. *Sugar*, CF. *Sutton's Student*, M&S.

Long Smooth Hollow Crown. Chl Ham Hlm JMM.

SIMILAR NAMES. See *Hollow Crown*.

SEEDSMEN'S SYNONYMS. *Large Sugar*, J&S Nol.

Long Smooth White. Bgg Brk *CE* Emr Fqr Fax Grw *MV* HP Pne Ptt Rce RP SC *Sox* Spf Thm Wea Web.

SIMILAR NAMES. See *Long Smooth*.

Long Sugar. Ebr Iow JCM Mel Sal Shm Trm. For similar names see *Sugar*.

SEEDSMEN'S SYNONYMS. *Hollow Crown*, Iow.

Long White. C&J Mnd MV Mzy Thr AGT Vin Wyg.

SIMILAR NAMES. Arlington Smooth Long White, Arlington Long White, Zimpfer's Long White, Long White Dutch, Long White Sugar Crown, White.

Seedsmen's synonyms. *Cup*, Bdg. *Guernsey*, Bdg. *Hollow Crown*, Bdg. *Sugar*, Bdg Brr.

Long White Dutch. Anb Brn Crs Fer Gls Jns *Lam* Lnr LB Liv Loh Min Pg JMP.

Similar names. See *Long White, Long Dutch.*

Seedsmen's synonyms. *Long Hollow Crown*, Vk. *Sugar*, Fer Gls Loh LB Wyg, etc.

Long White Sugar. Alr Buc *Cam.* For similar names see *Long White.*

Seedsmen's synonyms. *Hollow Crown*, Alr. *Improved Hollow Crown*, Buc

Long White Sugar Crown. Alr.

Similar names. See *Long White, Hollow Crown.*

Magnum Bonum. Brd Btl Brb Cle Dlw Del DD Gdn Gra Jac Kg Man Mas May Mls OV Pnt *Sie* Sox *Tpk* Trm Vau.

Maltese. Buc DD Emr RE Fqr Ggy Hrv May MV Roc Shm *Sox* Thr.

Similar names. Carter's Maltese, Half Long Maltese, White Maltese Hollow Crown.

Manitoba Prize Intermediate. *McK.*

Market Gardener's. Roc.

Similar names. Breck's Market Garden, Leonard's Market Garden, Farquhar's Market Model.

Pearce's Perfection. D&H. For similar names see *Cook's Perfection.*

Round. Ger. For similar names see *Early Round.*

Seedsmen's synonyms. *Turnip-Rooted*, Ger.

Salzer's Crown, Salzer's Delmonico. Entered as *Crown* and *Delmonico.*

Short Neck Hollow Crown. *WS.* For similar names see *Hollow Crown.*

Short Round French. *DD* Iow J&M Raw *Ren.*

Similar names. See *Early Round.*

Smooth Long Hollow Crown. J&S JMM Nol Pac.

Similar names. See *Hollow Crown.*

Student. Bgg Bru Bui Cur Del DD Drr Elt Emr Ewg Fmr Fqr Gry TG RHJ May JMM Mhl Mls *MV* Nef Sal S&F *Sox* SB Wea W&D Yng.

Similar names. Sutton's Student.

Seedsmen's synonyms. *Guernsey*, Bui Drr Mhl Nef. *Hollow Crown*, Bgg.

Sugar. Alx Ar Bui Brb Cam Col CF Crg Fer Gdn GN G&T Haw Hnt Jac J&M Ken Lan *Lam* Lnr LB Mhl Min Pg Roc Shw S&O Sie Stk Stw TB Thm Til Wlt Wd WS Wyg Y&H.

Similar names. Buckbee's Sugar, Wood's Sugar, Improved Sugar, Wood's Improved Sugar, Large Improved Sugar, Large Sugar, Long Sugar, Large Smooth Sugar, Large White Sugar.

Seedsmen's synonyms. *Hollow Crown*, Alx Bui Btl Col G&T Ken Mhl, etc. *Cup*, Ar Bdg Stw. *Guernsey*, Bdg. *Improved Hollow Crown*, Haw. *Long Hollow Crown*, Vk. *Long Smooth*, CF. *Long White*, Bdg Brr. *Long White Dutch*, Fer Gls LB Lnr Pg Wyg, etc.

Sugar Cup. TB.

Seedsmen's synonyms. *Hollow Crown*, TB.

Sutton's Student. Bdg *CE* RE Gng Hse Kei M&S Pri Ren Rce.

Similar names. See *Student.*

Seedsmen's synonyms. *Long Smooth*, M&S.

Table Guernsey. Iow. For similar names see *Guernsey.*

Thorburn's Hollow Crown. Entered as *Hollow Crown.*

Turnip-Rooted. Brk Eas Ger MWJ Stw.

Seedsmen's synonyms. *Early Round*, Brk. *Round*, Ger.

White. Roc. For similar names see *Long White.*

Seedsmen's synonyms. *Improved Hollow Crown*, Roc.

White Maltese Hollow Crown. M&S.

Similar names. See *Maltese, Hollow Crown.*

Wood's Improved Sugar. Entered as *Wood's Sugar.*

Wood's Sugar. Wd. For similar names see *Sugar.*

Zimpfer. JL.

Similar names. Zimpfer's Long White.

Zimpfer's Long White. Liv. For similar names see *Zimpfer, Long White.*

PEA.

A 1. Ggy.

Abbot of Bardney. Bkt Grn Rog.

Abbot of Reading. Bkt.

Abundance. All Anb Brd Brt Btl *Bel* Ber Bow Bgg Brk Bdg Bgs Buc Bui Bur Brr Brw C&J Cam *CE* Cle C&B Col CF Cox Crs Cur Del DD Drr Drm Ebe Elt Emr RE Ewg Fmr Fqr Fst Fax Frd Ger Gdn GH Ggy Grn G&T Grw TG Hns Hrm Hrn Hrs Hen H&C Hlm Hme H&P Iow Jac *MWJ* J&M J&S K&W Ken Kg Kra Lan Lea Lnr *LB* Liv JL Mgd Man Mau May JMM Mhl MV Neb NI OV Pac JMP Prn Pri Qkr Raw Rce Roc Rog Rs RP Sal S&F S&O Shm Sox Spf S&W Tem TB Thr Thb *Tpk* Trm *Vl* Van Vk Wea W&D Wer.

Similar names. Bliss' Abundance.

Acme. Wd.

Similar names. Wood's Acme.

Admiral. All Bai Bgs Buc *Bur* Cle Fer Frd Gls GH Grn G&T Hrm Hrv Hen Hlm Hme Iml J&S Lan *Lnr* Liv Mau Ptt Rce Roc Rog Shw Sqr SB Vk Wit.

Similar names. Admiral Dewey, Allan's Admiral Dewey.

Admiral Dewey. All Alr Brd *Bkt Bgg* Frd Ggy TG H&P K&W Ken *Lnr JMM* Rs *Thr Vl Van Wea.*

Similar names. Allan's Admiral Dewey, Admiral.

Advancer. *Alx* All Alr Ar Bai Bak Brd Brt Bel Bou Bow Bgg Brk Bdg Bgs Bri Brn Bru Buc Bui *Bur* Brr Brw C&J *Cam* CE Cle C&B CF Cox Crs Cur Chm D&H Del DD Drr Drm Dun Ebe *Eic* Elt Emr RE Ewg Fqr Fst Fax Fer Frd Ger Gls GH Gra Ggy Grn Gry G&T TG Ham Hrm Hrn Hrs Hrv Hen H&C Hlm Hme Iml *MWJ* RHJ J&S Jns Kel K&W Ken Kg Kra Lam Lan Lea Lnr LB Liv JL Loh Mnd Mgd Man *Mns* Mas Mau May JCM JMM Mic Min MV M&S Mzy Neb Nol NI NK OV Pg Pnt Ptt Por Pot Pri Pug Qkr Raw Ren Rce Roc Rog Rs RP Sal S&R SC S&F *Shw* S&O Shm Sox Spf Sqr Stk SB S&H S&W Tat Tem Thr Thb Til Trm Vl Vau Vk Vin Wat Wea Web W&D Wd WS Y&H.

Similar names. McLean's Advancer, Vincent's Advancer.

Seedsmen's synonyms. *Dwarf Champion*, Vk Tem.

Alameda Sweet. Cox Vin.

Seedsmen's synonyms. *Yorkshire Hero*, Cox.

Alaska. Alx All Anb Bak Brd Brt Btl Bkt Bel Ber Bou Bow Bgg Brk Bdg Bgs Bri Bng Buc Bui Brb Bur Brr Brw C&J Cam *CE* Chl Cle C&B CF *Cox* Crs Cur CA Chm Dlw Del DD Drr Drm Dun *Eas* Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fer *Fld* Fle Frd Ger Gls Gdn GH Gra Ggy Grn Gry *Gfg* G&T Grw TG Hrm Hrn Hrs Hrv Hst Hen H&C Hly Hlm Hop Hme H&P Iml Iow Jac *MWJ* J&S Jns Kel K&W Ken K&F Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv Loh Mnd Mgd Man PM Mns Mas Mau May JCM JMM McK Mic Min MV M&S Mzy Neb Nol NK OV Pac Pg JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr Raw Ren Rce Roc Rog Rt Rs RP Sal S&R SC S&F S&O Shm Sie Sim Sox Sqr SB

S&H S&W Tat Tem Tex TB Thm Thr *Tlh* Til Tpk Trm Vl Vau Vk Wea W&D Wer Wd WS Wyg Y&H.

Similar names. Early Alaska, Extra Early Alaska, Cleveland's Alaska, Cleveland's Early Alaska.

Seedsmen's synonyms. *Earliest of All*, Buc Bow Fqr Fer Lam Raw, etc. *Laxton's Earliest of All*, Bur Elt TG.

Alderman. Bur.

Allan's Admiral Dewey, Allan's Dwarf Telephone, Allan's Gradus, Allan's Improved Telephone, Allan's Maud S., Allan's Sunol. Entered as *Admiral Dewey*, *Dwarf Telephone*, *Gradus*, *Telephone*, *Maud S.*, and *Sunol.*

Allan's Number One. All.

Alliance. Bui Jac.

Seedsmen's synonymns. *Eugene*, Bui Gdn.

Alneer's First and Best. Entered as *First and Best.*

Alpha. All Brk Bdg Bgs Bui *CE* Cle C&B Crs D&H DD Dun Ebr Eic Elt Emr Ewg Fer Ggy Grn Gry TG Hrm Hen *H&C* Hme K&W Ken Lam Lnr Mnd Mas JMM MV Mzy Pg Pir Prn Rce Sim *Sox* Stk S&W Tat Thr W&D.

Similar names. Improved Alpha, Laxton's Alpha.

Ameer. Drr Hme J&S.

American Champion. All Blg Brk *Bur* Brr *CE* C&B Elt Frd GH Grn Hrm Hen Hse Mns *JCM* JMM Prn Pot S&W *Til* Vk W&D Wdr.

Similar names. See *Champion of England.*

Seedsmen's synonyms. *Duke of Albany*, Bkt Brk Fqr Rce Thr Vk, etc.

American Tom Thumb. Crs Hme. For similar names see *Tom Thumb.*

American Wonder. Alx All Alr Anb Ar Bai *Bak* Brd Brt Btl Bel Ber Blg Bou Bow *Bgg* Brk Bdg Bgs Brn Bru Bng Buc Bui Bur Brr Brw C&J Cam CE Chl Cle C&B Col CF Cox Crg Crs Cur CA Chm Dlw D&H Del DD Drr Drw Drm Dun Eas Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Fle Frd Ger Gdn GH Gra Gng Ggy Grn Gry Gfg G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hst Haw Hen H&C Hlm Hop Hse Hme Hnt Iml Iow Jac MWJ RHJ J&M J&S Jns Kei Kel K&W Ken Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Lon Mnd Mgd Man PM Mas Mau May JCM JMM McK McM Mic Mhi Mls Min MV M&S Mzy Neb Nef Nol NI NK OV Old Pac Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Pot Pri Pug Rtk Raw Rce Roc Rog Rt Rs RP S&R SC S&F S&B Shw S&O Shm Sie Sim Sox Spf Sqr Stk SB Stw S&H S&W Tat Tem Tex TB Thm Thr Thb AGT Til *Tpk* Trm T&B Vl Vau Vk Vin Wat Wea W&D Wer Wd WS Wyg Yng Y&H.

Similar names. Bliss' American Wonder, Improved American Wonder.

Anticipation. RE.

Arthur Field. SB.

Barnard's Leader. Brd.

Barrett's Maud S. Entered as *Maud S.*

Bell's Extra Early. Entered as *Extra Early.*

Bergen Fleetwing. All Ebe Ggy Haw Rce.

Similar names. Grenell's Extra Early Bergen Fleetwing, Fleetwing, Extra Early Bergen Fleetwing.

Bishop. Sqr.

Bishop's Dwarf Long Pod. Stk. For similar names see *Bishop's Long Pod.*

Bishop's Improved. Entered as *Bishop.*

Bishop's Long Pod. Hme.

Similar names. Bishop's Dwarf Long Pod, Bishop's Improved.

Black-Eyed Marrowfat. Alx All Alr Anb Bai Bak Brd Brt Btl Bkt Bel Bou Bow Bgg Brk Bdg Bri Brn Bru Bng Bui Brb Bur Brr C&J Cam CE Cle C&B Crg Crs Cur Drr Dun Eas Ebe Ebr Eic Elt Emr RE Evr Ewg Fqr Fst Fax Frd Ger Gls Gdn

GH Gra Ggy Grn Gry Gfg Grw TG Ham Hrm Hst Haw Hen H&C Hlm Hop Hme Iow Jac MWJ J&S Jns Kei K&W Ken Kg Kos Kra Lan Lea Lnr Liv JL Mnd Man PM Mns Mau May JCM JMM McM Mhl MV Mzy Nef Nol NK OV HP Prn Pne Pnt Ptt Por Pot Pri Pug Qkr Raw Ree Rog RP S&R SC S&F S&O Shm Sie Sim Sox Spf Sqr Stk SB S&W Tat Tem Tex Thm Thr Thb *Tpk* Trm Vl Vau Vin Web W&D Wer Wll Wlt Wd WS Y&H.

Similar names. Large Black-Eyed Marrowfat, Early Black-Eyed Marrowfat, Large White Black-Eyed Marrowfat, English Dwarf Black-Eyed Marrowfat, Peruvian Black-Eyed Marrowfat. See also *Marrowfat*, *White Marrowfat.*

Seedsmen's synonyms. *Peruvian Marrowfat*, Bdg.

Bliss' Abundance, Bliss' American Wonder, Bliss' Everbearing, Bliss' Stratagem. Entered as *Abundance*, *American Wonder*, *Everbearing*, and *Stratagem.*

Bliss' Wonder. Tpk. For similar names see *English Wonder.*

Bloomsdale. MWJ Lan.

Blue Beauty. All Bai Bru Bui Crs Del Drr Drm Eic GH Hen Hme Lnr Mhl M&S Nol Pnt Ree SC Stk Thr.

Similar names. See *English Beauty.*

Seedsmen's synonyms. *Perfection*, All.

Blue Field. *Lnr.*

Blue Imperial. Bgg Bdg Brn Cle Crg Drr Dun Ewg GH Gra Grn Hme *MWJ* J&S Kei Lan *Lnr* Mhl Ree Rog Sim Tat W&D.

Similar names. Dwarf Blue Imperial.

Blue Peter. All Brd Bow Bdg Brn Bru *CE* Cle Cox *Crg* Crs DD Ebe RE Ewg Fer GH Ggy Gry G&T Hrs Haw H&C Hme J&S Kei Lan Lnr May JCM JMM Mzy Pks JMP Pnt Ree RP Sal S&F Sim Trm Vin *Wea* W&D Y&H.

Similar names. McLean's Blue Peter.

Seedsmen's synonyms. *Blue Tom Thumb*, Bow Fer G&T H&C J&S RP Vin.

Blue Prussian. Ger GH Hme J&M Lam Pug S&R Sqr SB Wer.

Seedsmen's synonyms. *Green Field*, Pug.

Blue Tom Thumb. Bow Lnr Vin. For similar names see *Tom Thumb.*

Seedsmen's synonyms. *Blue Peter*, Bow Fer G&T H&C J&S RP Vin.

Boston Unrivaled. Bur.

Bountiful. M&S.

Similar names. Moore's Bountiful.

Breck's Excelsior. Brk. For similar names see *Nott's Excelsior.*

Breck's New Life. Brk Ggy.

Bridgeman's Extra Early. Entered as *Extra Early.*

Briggs' Extra Early. Entered as *Extra Early.*

British Queen. All Hme *Lnr* W&D. For similar names see *Queen.*

British Wonder. Gra *Lnr.* For similar names see *English Wonder.*

Bruce's C P R. Bru.

Brunning's Extra Early. Entered as *Extra Early.*

Buckbee's Extra Early Tom Thumb, Buckbee's Lightning Express, Buckbee's Mammoth Melting Sugar, Buckbee's Startler. Entered as *Extra Early Tom Thumb*, *Lightning Express*, *Mammoth Melting Sugar*, and *Startler.*

Buist's Morning Star. Entered as *Morning Star.*

Burpee's Best. McM. For similar names see *McMillan's Best.*

Burpee's Extra Early, Burpee's Profusion, Burpee's Quality, Burpee's Quantity. Entered as *Extra Early*, *Profusion*, *Quality*, and *Quantity.*

Canadian Beauty. Gra Hme. For similar names see *Canadian Field.*

Canadian Blue Field. C&B Cur Ham Hen Lnr Wyg.

Similar names. See *Canadian Field.*

Canadian Field. Brt Bkt Bgg Bgs Bng Bui Bur Brr Brw C&J *CE* CF Del DD Drw Dun Ebe Ebr Elt Fmr Fqr Fst Ger Gry G&T Grw Ham Hrn Hrs H&C Hlm Hse

MWJ J&M J&S Ken Kg Lam Lan Liv Mgd May JCM JMM Mhl Mls Mzy Neb Nol Old Pg JMP Pir Ptt Pri Qkr Raw Rce Rog Rt Rs S&F Shw Sie S&H Tat TB Thr Trm Vk Vau Wea W&D Wd WS Y&H.

Similar names. Canada Green Field, Canadian Blue Field, Canada White Field, Canadian Yellow Field, Canadian Beauty.

Canadian Green Field. Btl Brk Col Fmr GH Ham Hbt Lnr Neb Old Sox Web Wer Wyg.

Similar names. See *Canadian Field.*

Canadian White Field. Ar Ber Brk CE C&B Col Cur Frd Gls GH Ham Hen Iml Iow K&W Kos Lnr Pot SC Sox Wer Wll Wyg.

Similar names. See *Canadian Field.*

Canadian Yellow Field. Hbt. For similar names see *Canadian Field.*

Canner's Favorite. All.

Similar names. Gardener's Favorite, Grant's Favorite, Market Gardener's Favorite, Nebraska Seed Co.'s Favorite, Favorite.

Caractacus. Cle Sqr.

Carter's Daisy, Carter's Elephant, Carter's Extra Early Premium Gem, Carter's First Crop, Carter's Lightning, Carter's Premium Gem, Carter's Pride of the Market, Carter's Stratagem, Carter's Telephone. Entered as *Daisy*, *Elephant*, *Extra Early Premium Gem*, *First Crop*, *Lightning*, *Premium Gem*, *Pride of the Market*, *Stratagem*, and *Telephone.*

Champion of England Alx All Alr Anb Ar Bai Brd Brt Btl Bkt Bel Blg Bou Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr Brw C&J Cam CE Chl Cle C&B Col CF Cox Crg Crs Cur CA Chm D&H Del DD Drr Drw Drm Dun Eas Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Fld Fle Frd Ger Gls Gdn GH Gra Gng *GN* Ggy Grn Gry Gfg G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hst Haw Hen H&C Hly Hlm Hop Hse Hme Hnt H&P Iml Iow Jac MWJ RHJ J&S Jns Kei Kel K&W Ken K&F Kg Kos Kra Lam Lan Lea Lnr *LB* Liv JL Loh Mnd Mgd Man PM *Mns* Mas Mau May JCM JMM McK McM Mic Mhl Min MV M&S Mzy Neb Nef Nol NI NK OV Old Pg Pks HP JMP Pir Prn Pne Pnt Ptt Por Pot Pri Pug Raw Ren Rce Rim Roc Rog Rt Rs RP Sal S&R SC S&F S&B Shw S&O Shm Sie Sim Sox Spf Stk Stw S&H S&W Tat Tem Tex Thm Thr Thb *Tlh* Til Tpk Trm T&B Vl Vau Vk Vin *Wat* Web W&D Wer Wll Wlt Wd WS Wyg Yng Y&H.

Similar names. Improved Champion of England, Dwarf Champion of England, Dwarf Champion, Emerson's Dwarf Champion, Rice's Improved Dwarf Champion, Forty Fold Champion, American Champion, White Champion.

Charmer. Vk.

Similar names. Vick's Charmer.

Chelsea. Elt Fle Grn Hen Lan Mnd Mas Rog Sqr Tem Thr Wea W&D.

Childs' Morning Star, Childs' Universal. Entered as *Morning Star* and *Universal.*

Claudit. Brk Ggy Sqr *Vk Wd WS.*

Clay-Colored. MWJ.

Cleveland Market. Til.

Cleveland's Advancer, Cleveland's Alaska, Cleveland's Early Alaska, Cleveland's Eclipse, Cleveland's First and Best, Cleveland's French Canner, Cleveland's Improved Tom Thumb, Cleveland's Rural New Yorker, Cleveland's Stratagem, Cleveland's Sugar Marrow. Entered as *Advancer*, *Alaska*, *Early Alaska*, *Eclipse*, *First and Best*, *French Canner*, *Tom Thumb*, *Rural New Yorker*, *Stratagem*, and *Sugar Marrow.*

Clipper. Brk Raw S&F.

Similar names. Rawson's Clipper.

Seedsmen's synonyms. *Earliest of All*, S&F.

Conqueror. Hme.

Similar names. Bruce's Early Conqueror, Early Conqueror.

Cooper's Goliath. Entered as *Goliath.*

Cox's Earliest of All. Entered as *Earliest of All.*

Crooked. SB.

Crosman's First and Best. Entered as *First and Best.*

Crown Prince. Bkt Grn J&S.

Culverwell's Telegraph. Entered as *Telegraph.*

Currie's Extra Early Challenge. Entered as *Extra Early Challenge.*

Daisy. All Bai Bkt Brk Bri Brb Bur *Crs Drr Eas Frd* Ggy Grn *Gry* TG Hrm Hrn *Hlm* J&S *Kos* Kra Lan Liv JL Mgd M&S NK Ren Rog *S&R* Shw Sim *Stk Tem* Thr Til Vau Vk Wdr.

Similar names. Carter's Daisy, Moore's Daisy, Vick's Daisy.

Seedsmen's synonyms. *Dwarf Telephone,* C&J J&S Mau Ptt Rce Wdr, etc.

Dandy. GH Neb Pri Sqr.

Similar names. Price & Reed's Dandy, Squire's Dandy, Michell's Dandy Extra Early, Dandy Extra Early.

Dandy Extra Early. Bui Mhl. For similar names see *Dandy.*

Daniel O'Rourke. Alx Bai Brt Bgg Brk Bdg Bru Brb Bng C&J *Cam CE* Cle C&B CF Cox Crs *Cur* Del DD Drr Ebe Eic Elt Emr RE Ewg Fqr Gry TG Hrm Hen J&S K&W K&F Kra Lan Lnr Mnd JCM Mhl Mzy Nol Prn Ptt Pot Pri Rce Rog Rs RP S&F Shw Tat Thr Vin Wea W&D Y&H.

Similar names. Improved Daniel O'Rourke, Improved Early Daniel O'Rourke, Extra Early Daniel O'Rourke, Early Daniel O'Rourke.

Seedsmen's synonyms. *Hancock,* J&S. *Philadelphia Extra Early,* J&S.

Darch & Hunter's Little Giant. Entered as *Little Giant.*

Day's Early Sunrise. Entered as *Early Sunrise.*

Dexter. G&T TG May.

Similar names. Early Dexter, Improved Early Dexter.

Dickmann's Extra Early, Dickmann's Prize Taker. Entered as *Extra Early* and *Prize Taker.*

Doctor McLean. All D&H NI Ren. For similar names see *McLean's Advancer.*

Don. W&D.

Dreer's Electric Extra Early, Dreer's Eureka Extra Early, Dreer's Extra Early Pioneer. Entered as *Electric Extra Early, Eureka Extra Early,* and *Extra Early Pioneer.*

Duchess. *Blg* Hme.

Duchess of York. Grn. For similar names see *Duke of York.*

Duke of Albany. All Brd Bkt *Bgg* Brk Buc Bui Bur *Brr Cam CE* CF *Crs* Dlw Ewg Fqr Frd GH Gra Grn TG Hrm Hrs Hlm Hme Iml J&S K&W Lan Lnr Liv *McK* Nol Qkr Ren Rce Roc Rog Sie Sqr SB S&W Thr *Til Wea* Wdr Wyg.

Seedsmen's synonyms. *American Champion,* Bkt Brk Fqr Hrs Rce Thr, etc.

Duke of York. All Bkt *Bgg* Brk Bdg CF Drr Fqr Ggy Grn Hrv Hme Lan *Lnr* Mhl Raw *Rce* Rog S&F S&W Thr Til Wea W&D.

Similar names. Duchess of York.

Durban's Market Garden. Alx. For similar names see *Horsford's Market Garden.*

Dwarf Blue Imperial. Alx All Bui *Bur* Fst Hlm Mau JCM Pir Shm Stk *Trm* Yng.

Similar names. See *Blue Imperial.*

Dwarf Champion. Bdg Brb Brr *CE* C&B *Crs* Dun Eas Emr *Fld* GH Ggy Hrm Haw Iml Iow Lnr Mas Min Mzy Pg Prn *Raw* Rce Rs S&O Til Y&H.

Similar names. See *Champion of England.*

Seedsmen's synonyms. *Yorkshire Hero,* Mzy Prn Ptt Rs. *McLean's Advancer,* Vk Tem.

Dwarf Champion of England. Hop W&D.

Similar names. See *Champion of England.*

Dwarf Debarbieux. Rog.

Dwarf French Sugar. Pir. For similar names see *French Sugar.*

Dwarf Gem Improved. Entered as *Dwarf Gem.*

Dwarf Gem. Sqr.

Dwarf Giant-Podded Prolific Green Marrowfat. Blg *Mus.*

Similar names. See *Marrowfat.*

Dwarf Gray Sugar. Alr Btl Bur *CE* Cle Col Drr Fmr Fst GH Grn G&T Hns Hrn J&M *Jns* Kra Lnr *Mus* May Neb NK OV HP JMP Pnt Rce Rog RP Sie Sox S&H Tem Vau Web Wyg.

Similar names. See *Gray Sugar.*

Seedsmen's synonyms. *Dwarf Sugar,* Wyg.

Dwarf Green Wrinkled Marrowfat. G&T. For similar names see *Marrowfat.*

Dwarf Marrowfat. *RHJ* Mgd. For similar names see *Marrowfat.*

Dwarf Profusion. Sal. For similar names see *Profusion.*

Dwarf Sugar. Brd Brt Bdg Bui *Bur* Crs Cur D&H Del DD Drm Eic Elt Emr RE Frd Ger Gra Grw Hrv Hlm Hop Hse J&S Ken Kos LB Liv Mns Mau JMM McK Mhl Mzy Pks HP Por Pri Pug Qkr Raw Ren Sal S&R Shm Sim Spf Stk TB Thm *Thr* Trm Vin W&D.

Similar names. Very Dwarf Sugar, Early Dwarf Sugar, Early Dwarf Wrinkled Sugar, Dwarf Wrinkled Sugar, Dwarf White Sugar, Dwarf French Sugar, Dwarf Gray Sugar.

Seedsmen's synonyms. *Dwarf Gray,* Wyg.

Dwarf Telephone. All Brd Brt Bkt Bgg Brk Brb C&J *CE CF Crs Dlr* Drr Dun Fqr Frd Gdn Ggy Grn *Gry* TG Hrm Hrn H&C Hlm H&P J&S K&W Ken *Kos* Kra *Lnr LB* Mau May JMM Ptt *Raw* Rce Sal S&F Sim *Stk* SB S&H Til Vl Vau *Wea* Wd Wdr Y&H.

Similar names. See *Telephone.*

Seedsmen's synonyms. *Carter's Daisy,* C&J J&S Mau Ptt Rce Wdr. *Daisy,* Brk Brb Hrn Kra Sim Vau, etc.

Dwarf Tom Thumb. Ber Hnt Liv. For similar names see *Tom Thumb.*

Dwarf White Blossom. *Hlm.*

Dwarf White Marrowfat. All Brt Brk Drm Ebe Elt Frd GH Grn Gry Hde Hrs Hme Iow PM McM HP JMP Raw RP Sqr SB Vau Wea.

Similar names See *White Marrowfat.*

Dwarf White Missouri Marrowfat. Ken S&F.

Similar names. See *White Marrowfat.*

Dwarf White Sugar. Cle Drr Nef. For similar names see *Dwarf Sugar.*

Dwarf White Sugar Marrowfat. Bui. For similar names see *White Marrowfat.*

Dwarf Wrinkled Sugar. Elt MV Rog *Sox* W&D Wer.

Similar names. See *Dwarf Sugar.*

Earliest and Best. Ham. For similar names see *First and Best.*

Earliest Dwarf. K&F Pnt. For similar names see *Earliest of All.*

Seedsmen's synonyms. *Tom Thumb,* Pnt K&F.

Earliest Dwarf Jumbo. Sal.

Similar names. Salzer's Earliest Dwarf Jumbo.

Earliest Market. Elt Kg.

Similar names. King's Earliest Market.

Earliest of All. All Bow Buc Bur Brr CCo Cox Ebe Fqr Fax Fer Fle Ggy Hlm Hme Iml Koe Lam LB JL Loh Mau Mzy Pg Pot Pri Qkr Raw Roe Rog RP S&F Sie Tat Vau.

Similar names. Cox's Earliest of All, Laxton's Earliest of All, Maule's Earliest of All, Hampden's Earliest, Plant's Earliest Dwarf, First of All, Huntington & Page's First of All, Kendel's First of All, Schisler-Corneli First of All, Thompson's First of All, Will's First of All, Earliest Dwarf.

Seedsmen's synonyms. *Alaska*, Bow Fqr Fer Lam JMP Raw, etc. *Clipper*, S&F. *Early Alaska*, Lan.

Earliest Perfection. Shm. For similar names see *Perfection.*

Early Alaska. Alr *Eic* Hns Hde LB Lon Stk. For similar names see *Alaska.*

Seedsmen's synonyms. *Earliest of All*, Lon.

Early Black-Eyed Marrowfat. Sie. For similar names see *Black-Eyed Marrowfat.*

Early Bountiful. *Bur.*

Early Conqueror. Bru. For similar names see *Conqueror.*

Early Daniel O'Rourke. Buc Bui Brr Crg Fax Fer *LB* JMM Shm.

Similar names. See *Daniel O'Rourke.*

Early Dexter. All Brt CF Elt Fqr Ptt S&F Trm. For similar names see *Dexter.*

Early Dwarf. *RHJ.*

Early Dwarf Sugar. C&B. For similar names see *Dwarf Sugar.*

Early Dwarf Wrinkled Sugar. Brk. For similar names see *Dwarf Sugar.*

Early Eclipse. *Nol.*

Early Frame. Bui Crg Lan SC.

Similar names. Improved Early Frame.

Seedsmen's synonyms. *Early May*, Ar SC Stk. *Early Washington*, Stk.

Early French. S&W W&D. For similar names see *French Sugar.*

Early Gradus. Buc D&H GN Roc. For similar names see *Gradus.*

Seedsmen's synonyms. *Prosperity*, Buc D&H Roc.

Early Hancock. Cle. For similar names see *Hancock.*

Early June. Crs Mhl M&S.

Early Kent. Brn Buc *CE* Crg Crs Ewg Gdn GH Hnt Jns Lea JCM Min Ree Roc.

Similar names. See *Kentish Invicta.*

Seedsmen's synonyms. *Early May*, JCM.

Early May. Ar Buc Bui Cle Crg DD Gdn Jac MWJ Lan *LB* Mns Roc Sal Shw Stk.

Similar names. Early May, Improved May.

Seedsmen's synonyms. *Early Frame*, Ar SC Stk. *Early Kent*, JCM. *Early Washington*, Stk.

Early Morning Star. Cle GH Hly Jac. For similar names see *Morning Star.*

Early Norther. GN.

Early Philadelphia. Brr. For similar names see *Extra Early Philadelphia.*

Early Premium Gem. Col *Cok* Ptt. For similar names see *Little Gem.*

Early Prize. Ggy Mau.

Early Record. Mic.

Similar names. Michael's Early Record.

Early Sugar Marrowfat. *M&S.*

Early Summit. *TB.*

Early Sunrise. CA *Gry* Shw. For similar names see *Sunrise.*

Early Surprise. TG *Rs.* For similar names see *Surprise.*

Early Tom Thumb. Bui JMP Stk Wyg. For similar names see *Tom Thumb.*

Early Washington. Bui Eic Stk.

Seedsmen's synonyms. *Early Frame*, Stk. *Early May*, Stk.

Early Wrinkle. Sqr.

Similar names. Lohrman's Earliest Wrinkled.

Ebeling's Telephone. Entered as *Telephone.*

Eclipse. All Bgg Brk Brb Brr *CE* D&H Dun Ebe Ggy Grn Gry Hrm H&C Hme *Jns* K&W Ken May JCM JMM *Pot* Ree Wd.

Similar names. Cleveland's Eclipse, Tait's Extra Early Eclipse.

Seedsmen's synonyms. *Gregory's Surprise*, J&S Ree Wdr. *Surprise*, Brk Pnt.

Edible Pod Sugar. Bel *Fid* Grw NK. For similar names see *Melting Sugar.*

Edible Pod White Sugar. MWJ. For similar names see *Melting Sugar.*

Egyptian Mummy. SB.

Eichling's First and Best. Entered as *First and Best.*

Electric Extra Early. Drr.

Similar names. Dreer's Electric Extra Early.

Electric Light. D&H.

Elephant. Bgs.

Similar names. Carter's Elephant.

Emerald Gem. M&S. For similar names see *Little Gem.*

Emerson's Dwarf Champion. Entered as *Dwarf Champion.*

Empire State. Evr Ggy S&H.

Encore. *Tlh.*

English Beauty. Sqr.

Similar names. Mills' Mammoth Beauty, Blue Beauty, Mammoth Beauty.

English Dwarf Black-Eyed Marrowfat. M&S.

Similar names. See *Black-Eyed Marrowfat.*

English Dwarf White Marrowfat. M&S. For similar names see *White Marrowfat.*

English Wonder. All Gra *Lnr* Sqr Vk.

Similar names. British Wonder, Matchless Wonder, Bliss' Wonder, Wisbech Wonder.

Enormous. Mls.

Similar names. Mills' Enormous.

Eugenie. Bui Gdn Hme Jac Lan Stk.

Seedsmen's synonyms. *Alliance*, Bui Gdn.

Eureka Extra Early. Bui Drr Mhl.

Similar names. Dreer's Eureka Extra Early.

Evans' Extra Early. Entered as *Extra Early.*

Everbearing. All Anb Ar Bai Bak Brd Brt Btl Bel Ber Blg Bou Bow Bgg Brk Bdg Bgs Brn Buc Bui Brb Bur Brr C&J Cam CE Chl Cle C&B Col CF *Cok* Crs Cur Chm Del DD Drr Drm Dun Eas Ebe Ebr Elt Emr Evr Ewg Fmr Fqr Fax Fst Fer Fld Frd Ger Gls GH Gra GN Ggy Grn Gry G&T *Grw* TG Hns Ham Hde Hrm Hrn Hst Haw Hen Hbt H&C Hly Hlm Hop Hse Hme Hnt H&P Iml Iow *MWJ* RHJ J&M J&S *Jns* Kel K&W Kg Lam Lan Lnr LB Liv JL Mnd Mgd Mns Mau May JCM JMM McK Mhl Mls MV M&S Mzy Neb NI NK OV Pac Pg HP JMP Pir Prn Pnt Ptt Por Pot Pug Qkr Raw Ren Ree Rim Roc Rog Rs RP S&R SC S&F Shw S&O Shm Sie Sim Sox Sqr Stw S&H S&W Tem Tex Thm Thr *Tlh* Til *Tpk* Trm T&B Vl Vau Vk Wea Web W&D Wll Wd WS Wyg Yng Y&H.

Similar names. Bliss' Everbearing.

Everitt's Extra Early Reliance. Entered as *Extra Early Reliance.*

Evolution. Bui Bur Ewg Fqr Hlm Lan.

Similar names. Laxton's Evolution.

Excelsior. Ggy Mnd Pir. For similar names see *Nott's Excelsior.*

Exhibition Marrowfat. Hme. For similar names see *Marrowfat.*

Exonian. Bai Fqr *Hrm* Hme Lan *Ree* S&W Thr W&D.

Express. WS. For similar names see *Lightning.*

Extra Early. Ar Bak Bel Bdg Bgs Bri Brn Bng Bui Bur Cam *CE* Crg Crs CA Chm Dlw DD Drm Eas Ebr *Eic* RE Fst Fer Fld GH Hrn Hop Hnt H&P MWJ J&S Jns *Kel* K&F Kg Koe Lan Loh Mnd Mau McM Mic *Mhl* Min Nol Pg Pks HP Prn Pne Pnt Pri Ren Ree Rim RP *Sie* Spf Stk SB Stw TB Til 17 Vk Wd.

Similar names. Improved Extra Early, Bell's Extra Early, Bridgeman's Extra Early, Briggs' Extra Early, Brunning's Extra Early, Burpee's Extra Early, Dickmann's Extra Early, Faust's Extra Early, Harnden's Extra Early, Johnson & Stokes' Extra Early, Jones' Extra Early, Landreth's Extra Early, Maule's Improved Extra Early, Mingle's Extra Early, Noll's Extra Early, Perkins' Extra Early, Philipps' Extra Early, Pierson's Extra Early, Plant's Extra Early, Price & Knickerbocker's Improved Extra Early, Price & Reed's Extra Early, Rennie's Extra Early, Rice's Extra Early, Steele-Briggs' Extra Early, Rush Park Seed Co.'s Extra Early, Vick's Extra Early, Wood's Extra Early.

SEEDSMEN'S SYNONYMS. *First and Best*, CA Stk Sie.

Extra Early Alaska. Blg Brn *Cam* CE Col Crg *Hst* JL *Mns* Mhl HP Shw.

SIMILAR NAMES. See *Alaska.*

Extra Early Bergen Fleetwing. Grn. For similar names see *Bergen Fleetwing.*

Extra Early Challenge. Cur.

SIMILAR NAMES. Currie's Extra Early Challenge.

Extra Early Daniel O'Rourke. Buc Ggy Roc Tpk.

SIMILAR NAMES. See *Daniel O'Rourke.*

Extra Early Deposit. Tat.

Extra Early Dwarf Brittany. SB.

Extra Early Eclipse. *Pnt* Tat.

Extra Early Gradus. Bui Yng. For similar names see *Gradus.*

SEEDSMEN'S SYNONYMS. *Prosperity*, Bui.

Extra Early Headlight. Crg.

Extra Early Kent. Anb Bgs Buc *LB May* RP Shm.

SIMILAR NAMES. See *Kentish Invicta.*

Extra Early Manifold. *McK.*

Extra Early Market. Cle C&B Dlw Ebr Kos McK Thr *Tlh.*

SIMILAR NAMES. Koss' Extra Early Market, Thorburn's Extra Early Market, Market Gardener's Extra Early, Holmes' Market Gardener's Extra Early.

Extra Early Maud S. Brr Hde Pnt Shw *Wlt.* For similar names see *Maude S.*

Extra Early Morning Star. Blg. For similar names see *Morning Star.*

Extra Early Nonpareil. Blg Tat. For similar names see *Nonpareil*

Extra Early Philadelphia. Anb Bdg Bgs Bui Buc Bur CE Cle C&B Cox Crg Crs Del DD Ebe Fst Gdn GH Ggy Grw TG Hde Hrm Hrn Hrv Hst Hlm J&S K&W Lan LB Lnr *May* JCM JMM McK Neb Pne Pri Ren Rce Roc Rs RP SC *Shw* Shm Spf Tat Tex *TB* Tpk Trm T&B Wat W&D Wlt Wd WS Yng *Y&H.*

SIMILAR NAMES. Shumway's Extra Early Philadelphia, Early Philadelphia, Philadelphia.

SEEDSMEN'S SYNONYMS. *Daniel O'Rourke*, J&S. *First and Best*, Wlt. *Hancock*, J&S.

Extra Early Pioneer. Drr.

SIMILAR NAMES. Dreer's Extra Early Pioneer.

Extra Early Premium Gem. Alr Buc Bur Brr *CE* C&B Crs DD D&C Drm Elt Emr RE Fst Gry Ggy Ham Hrm Haw Hlm J&S Kei Kra Lnr *LB* JMM M&S Nol Old Pg HP Prn Pri Ren Rce Roc SC S&F Tem Vau Vk W&D Y&H.

SIMILAR NAMES. See *Little Gem.*

Extra Early Reliance. Evr.

SIMILAR NAMES. Everitt's Extra Early Reliance.

Extra Early Rural New Yorker. Shm.

SIMILAR NAMES. See *Rural New Yorker.*

Extra Early Star. Ewg. For similar names see *Morning Star.*

Extra Early Summit. CE NK.

SIMILAR NAMES. Northrup, King & Co.'s Summit Extra Early.

Extra Early Surprise. *Shw.*

Extra Early Telephone. Bkt. For similar names see *Telephone.*

Extra Early Tom Thumb. Brn Buc Fer *LB* MV Pks Roc Shw Shm *Sox* S&H.

SIMILAR NAMES. See *Tom Thumb.*

SEEDSMEN'S SYNONYMS. *Strawberry*, Buc Roc.

Extra Early Vermont. Haw.

Extra Early Wrinkled. *Kg.*

Extra Large Black Eye. *Hst.*

Fame. Ar Stk.

Family Garden. Man. For similar names see *Horsford's Market Garden.*

Faust's Extra Early. Entered as *Extra Early.*

Favorite. Neb. For similar names see *Canner's Favorite.*

Ferry's Extra Early Tom Thumb, Ferry's First and Best. Entered as *Extra Early Tom Thumb* and *First and Best.*

Fillbasket. All *Blg* Bdg Bui Cle Drr Fqr Ggy Grn Hen Hme J&S May Mhl M&S Pri Rce Rog Shw Sqr Tem Thr *Wea* W&D.

SIMILAR NAMES. Laxton's Fillbasket, Simon's Fillbasket, Improved Fillbasket.

First and Best. All Alr Anb Ar Bai Bak Brd Brt Btl Bkt Ber Blg Bou Bow Bgg Bgs Bri Brn Buc Bui Brr Cam CE Cle CF Crg Crs CA Chm D&H *DD* Ebr Eic Evr Ewg Fmr Fqr Fer Frd Gls Gdn GH *GN* Grn Gry Gfg G&T Grw TG Hns Ham Hde Hrm Hrs H&C Hly Hlm Hse Hnt Iml Iow Jac *MWJ* J&S Jns Kel Ken Kg Kra Lam Lan Lea LB JL Loh *Lon* Mnd Mgd Man PM Mns May JCM Mic MV Mzy Neb Nef NI OV Pks JMP Pnt Ptt Por Pot Pri Pug Rce Roc Rog Rs RP Sal S&R S&O Shm Sie Sox Spf Stk Stw S&H Tat TB *Thm* Thb Til Tpk Trm Vl Vau Wea W&D Wer Wlt Wd WS Wyg Yng Y&H.

SIMILAR NAMES. First and Best Extra Early, Alneer's First and Best, Cleveland's First and Best, Crosman's First and Best, Eichling's First and Best, Ferry's First and Best, Hammond's Earliest and Best, Henderson's First of All, Johnson's First and Best, Leonard's First and Best of All, Nebraska Seed Co.'s First and Best, Philipps' First and Best, Trucker's First and Best, First and Best of All, Wernich's First and Best.

SEEDSMEN'S SYNONYMS. *Carter's First Crop*, Bdg. *Extra Early*, CA Stk. *Maud S.*, Frd. *Landreth's Extra Early*, Sie. *Philadelphia Extra Early*, Wlt. *Premier Extra Early*, Alx. *Sutton's Ringleader*, Bdg.

First and Best Extra Early. Hme Shw Tex.

SIMILAR NAMES. See *First and Best, Extra Early.*

First and Best of All. Lnr. For similar names see *First and Best.*

First Crop. Anb Bdg Bru Buc *CE* Cle Ebe RE Ewg Hrm Kei K&W *LB* JMP Rce Roc Sal Shm.

SIMILAR NAMES. Carter's First Crop.

SEEDSMEN'S SYNONYMS. *First and Best*, Bdg. *Sutton's Ringleader*, Bdg.

First in the Market. Blg Drm JL.

SIMILAR NAMES. Livingston's First in Market, King's Earliest Market, Keith's First in Market.

First of All. Bui *CE* C&B Del Hrs Hst Hen H&P Iml Ken Kos Nol Pg Pne Poo Rce SC S&W Tat Tem Thm Thr AGT Vl Wll Y&H.

SIMILAR NAMES. See *Earliest of All.*

Fleetwing. Mgd Shw. For similar names see *Bergen Fleetwing.*

Fortyfold. All Bgs Bui Cle Crs D&H Fle GH G&T Hme Lan *Lur* Min Sqr.

SIMILAR NAMES. Improved Fortyfold.

Fortyfold Champion. Rog. For similar names see *Champion of England.*

Forty-Two Day. Ebe.

SIMILAR NAMES. Perry's Forty-Two Day.

French Canner. All Blg Bgs Bui *CE* Cur Drr G&T Hme J&S Lan *Lur* Mns Qkr Raw Rce Rog Sqr Tat Wer Wyg.

SIMILAR NAMES. Landreth's French Canner, Small Early French.

SEEDSMEN'S SYNONYMS. *Petit*, Raw. *Small French Pea*, Raw. *Petit Pois*, S&F.

French Sugar. RHJ.

SIMILAR NAMES. Dwarf French Sugar, Early French.

Gardener's Favorite. Blg G&T. For similar names see *Canner's Favorite.*

Giant-Podded Marrowfat. *Bkt* Blg Grn Hlm J&S M&S.

Similar names. See *Marrowfat.*

Seedsmen's synonyms. *Long Island Mammoth*, Hlm.

Giant Sugar. Blg Bow Cur *Drr* McK Ren Rog Tat Thr.

Similar names. See *Mammoth Sugar.*

Glory. All Bai Hme.

Similar names. Harrison's Glory.

Golden Vine. Btl GH Gra Ham Lnr SB.

Goliath. All Lan.

Similar names. Cooper's Goliath.

Gradus. All Alr Brd Brt *Blg* Bow Bgg Brk Bdg Bri Brn Bru Brb Bur Brr Brw C&J *CE* Col CF Cox Crs Cur CA Dlw DD Drr Drw Dun Eas Ebe Ebr Elt Emr RE Evr Ewg Fmr Fqr Fer Frd Gls Gdn GH Ggy Grn G&T *Grw* TG Ham Hrm Hrn Hrs Hrv H&C Hlm Hme H&P Iow Jer *RHJ* J&M J&S Jns K&W Ken Kg *Kos* Lam Lan Lnr Liv JL Loh Mau May *JCM* JMM McK Mhl Mls Mzy Neb *Nol* NK OV Old *Pac* Pg HP Prn Pne Pnt Ptt *Por Pot* Pri Raw Rce Rs Sal *S&R* SC S&F Shw Shm Sie *Sox Spf Stk* S&H S&W Tat Thr Thb *Tlh* Til Trm T&B Vl Vau Vk *Wat* Wea W&D *Wer* Wd WS Y&H.

Similar names. Early Gradus, Extra Early Gradus, Allan's Gradus.

Seedsmen's synonyms. *Prosperity*, Evr Bur Fqr Fer Drr Raw, etc. *Early Giant*, Ptt. *Extra Long Pod*, Ptt. *Rennie's Prosperity*, Ren.

Grant's Favorite. Buc *GN* Roc. For similar names see *Canner's Favorite.*

Gray Sugar. Ebe Tat.

Similar names. Dwarf Gray Sugar, Mammoth Gray Sugar, Tall Gray Sugar.

Green Marrowfat. M&S. For similar names see *Marrowfat.*

Green Prussian. Pug Vin. For similar names see *Blue Prussian.*

Gregory's Surprise, Gregory's Early Surprise. Entered as *Surprise* and *Early Surprise.*

Grenell's Extra Early Bergen Fleetwing. Entered as *Extra Early Bergen Fleetwing.*

Grey's Perfection. Gry. For similar names see *Perfection.*

Griffith's Canning. G&T.

Hammond's Earliest and Best, Hammond's Improved Stratagem, Hammond's Improved Telephone, Hammond's Morning Star. Entered as *Earliest and Best*, *Stratagem*, *Telephone*, and *Morning Star.*

Hampden's Earliest. Bgg. For similar names see *Earliest of All.*

Hancock. Ggy J&S Pne Tat.

Similar Names. Tait's Hancock, Early Hancock.

Seedsmen's synonyms. *Daniel O'Rourke*, J&S. *Philadelphia Extra Early*, J&S.

Harnden's Extra Early. Entered as *Extra Early.*

Harrison's Glory. Entered as *Glory.*

Hartford Extra Early. C&J.

Similar names. Hawley's Improved Hartford Extra Early.

Hastings' Home Delight. Entered as *Home Delight.*

Hawkins' Market Garden. Haw.

Similar names. See *Horsford's Market Garden.*

Hawley's Improved Hartford Extra Early. Entered as *Hartford Extra Early.*

Hearst's Reliance. Entered as *Reliance.*

Henderson's First of All, Henderson's Heroine. Entered as *First of All* and *Heroine.*

Hero. Blg Lan.

Heroine. All Alr Brt Bkt Blg Bow *Bgg* Brk Bdg Bri Brn Bru Bng Buc Bui Brb Bur Brr C&J *CE* Cle C&B Col CF Crs Cur DD Drr Drw Dun *Eas* Ebr Elt Emr RE Evr Ewg Fqr Fle Frd Ger Gdn GH Gra Gng GN Ggy Grn Gry G&T TG

Hns Ham Hrm Hrs Hen H&C Hlm Hme Jac Jer MWJ J&S K&W Ken Lan Lnr Liv JL Mnd Mgd PM Mas Mau May JMM McK *Mic* Mhl MV M&S Neb Nol OV Old Pg Pks HP Prn Ptt Poo Pot Pri Raw Ren Ree Roc Rog Rs Sal SC S&F Shm Sie Sim *Sox* Spf Sqr SB S&H S&W Tat Tem Thr Thb AGT Til *Tpk* Vl *Vau* Vk *Wat* Wea W&D Wer WS Y&H.

Similar names. Henderson's Heroine, Medium Early Heroine.

Holmes' Extra Early. *Hlm.*

Holmes' Market Gardener's Extra Early. Entered as *Market Gardener's Extra Early.*

Home Delight. Hst.

Similar names. Hastings' Home Delight.

Horsford's Early Market Garden. McK.

Similar names. See *Horsford's Market Garden.*

Horsford's Market Garden. All Alr Bai Brd Bkt *Bel* Ber Bow Bgg Brk Bdg Bgs Brn Bru Bng Buc Bui Brb Bur Brr C&J CE Cle C&B Col CF Crs Cur Chm DD Ebe Elt Emr RE Evr Ewg Fqr Fax Fer Fle Frd GH Gra Gng Ggy Grn Gry G&T TG Ham Hrm Hrn Hrs Hrv Hen Hbt H&C Hlm Hme H&P Iml J&S K&W K&F Kos Kra Lam Lan Lnr *LB* Liv Mnd Mau May JMM Mic Mhl MV Nol OV Pnt Ptt Pot Pri Qkr Raw Ren Ree *Rim* Roe Rog Rs SC S&F Shw S&O Shm Sie Sim Sox Sqr SB S&H S&W Tem Thr Thb Til *Tpk* Trm Vl Vau Vk *Wat* Wea W&D Wer Y&H.

Similar names. Horsford's Early Market Garden, Hawkins' Market Garden, Durban's Market Garden, Market Garden, Maule's Family Garden, Family Garden.

Hundredfold. Man.

Similar names. Mann's Hundredfold.

Huntington & Page's First of All. Entered as *First of All.*

Imperial Dwarf. Gfg.

Similar names. Large Blue Imperial.

Improved Alpha, Improved American Wonder, Improved Champion of England, Improved Daniel O'Rourke, Improved Early Daniel O'Rouke, Improved Early Dexter, Improved Early Frame, Improved Early May, Improved Extra Early, Improved Field, Improved Fillbasket, Improved Forty Fold, Improved Giant-Podded Marrowfat, Improved Hero, Improved Little Gem, Improved Premier Extra Early, Improved Pride of the Market, Improved Queen, Improved Stratagem, Improved Sugar Marrowfat, Improved Tom Thumb, Improved White Marrowfat, Improved White Sugar Marrowfat. Entered as *Alpha, American Wonder, Champion of England, Daniel O'Rourke,* etc.

Inexhaustible. *Tlh.*

Iowa Challenge. Ber Iow Rtk.

Similar names. Currie's Extra Early Challenge.

Irish Dwarf White Marrowfat. For similar names see *White Marrowfat.*

Irish Large White Marrowfat. Dlw Koe Lan Stw. For similar names see *White Marrowfat.*

Island Prolific. TB. For similar names see *McLean's Prolific.*

John Bull. Ebr Lan.

Johnson and Stokes' Extra Early. Entered as *Extra Early.*

Johnson's First and Best. Entered as *First and Best.*

Jones' Extra Early. Entered as *Extra Early.*

Juno. All Brt Blg Brk Bdg Buc Brr Col CF Cur Drr Elt Fqr Frd Ggy Grn Ham Hrm Hrs Hen H&C Hlm Iow J&S Kos Lan *Lnr* Liv Mau Mhl Mls Nol Pot Raw Ree Roc Rog S&F Shw *Spf* S&H S&W Tem Thr Tpk Vk Wea W&D Wdr.

Keith's First on Market. Kei. For similar names see *First in Market.*

Kendel's First of All. Entered as *First of All.*

Kentish Invicta. Blg Bdg Bgs *CE* Cle Crs Drm Fqr Gry Hme Hnt Lan May Pri Rce Rog.

SIMILAR NAMES. Early Kent, Extra Early Kent.

King of the Dwarfs. Hme Vk.

SIMILAR NAMES. Vick's King of the Dwarfs.

King's Earliest Market. Entered as *Earliest Market.*

Koss' Extra Early Market. Entered as *Extra Early Market.*

Lady. MWJ.

Landreth's Extra Early, Landreth's French Canner, Landreth's Phonograph. Entered as *Extra Early*, *French Canner*, and *Phonograph.*

Large Black-Eyed Marrowfat. Brd Bgs Buc *Cam* CF DD Drm Fer H&P Iml Loh Mic Neb Pg Pks Roc Rs Shw Til Tpk *Vl* Vk Wyg.

SIMILAR NAMES. See *Black-Eyed Marrowfat.*

Large Blue Imperial. Min. For similar names see *Imperial Dwarf.*

Large Dwarf White Marrowfat. Crs. For similar names see *White Marrowfat.*

Large Melting Sugar. *Thr.*

Large White Black-Eyed Marrowfat. MWJ.

SIMILAR NAMES. See *Black-Eyed Marrowfat.*

Large White Marrowfat. Ar Ber Bow Bgs Brn Bru Buc Bui Brr Cam CE C&B Col Cox Crg CA Chm Dlw DD Drr *Eic* Evr Fer GH Ggy Grn Grw TG Hrs Hst Haw Hen Iml Jns Kra Lan Lea Lnr JL Loh Mgd JCM JMM McM Min Neb Pg Pks Pnt Pri Qkr Rce Roc Rs RP SC Shw S&O Shm Sim Stk Tex Til Tpk Trm Vk Vin Web W&D Wer Wlt Wd WS Yng.

SIMILAR NAMES. See *White Marrowfat.*

Laxton's Alpha, Laxton's Earliest of All, Laxton's Evolution, Laxton's Extra Early, Laxton's Fillbasket, Laxton's Supreme. Entered as *Alpha*, *Earliest of All*, *Evolution*, *Extra Early*, *Fillbasket* and *Supreme.*

Laxton's Prolific. Ewg Gra Grn. For similar names see *McLean's Prolific.*

Laxton's Prolific Long Pod. Sim Stk W&D.

SIMILAR NAMES. See *McLean's Prolific.*

Leonard's First and Best. Entered as *First and Best.*

Lightning. *CE* Drr *Pg* Pri Rce Y&H.

SIMILAR NAMES. Nebraska Lightning, Price & Reed's Lightning, Carter's Lightning, Buckbee's Lightning Express, Lightning Express, Wood, Stubbs & Co.'s Express, Wood's Lightning Excelsior, Lightning Excelsior, Express.

Lightning Excelsior. Wd. For similar names see *Nott's Excelsior*, *Lightning.*

Lightning Express. Buc Roc. For similar names see *Lightning.*

Lilly-Bogardus Thoroughbred. *LB.*

Little Gem. Aix All Alr Anb Ar Bai Brd Btl Ber Bou Bow Bgg Bdg Bgs Brn Bru Bng Buc Bui Brb Bur Brr Cam CE Chl C&B Col CF Cox Crg Crs Cur CA Chm D&H Del DD Drr Drm Dun Ebe Ebr Eic Elt RE Evr Ewg Fmr Fqr Fst Fer Fle Ger Gdn GH Gng Ggy Gry Gfg Grw TG Hns Hrm Hrs Hrv Hen H&C Hlm Hse Hnt H&P Jac RHJ J&S Jns *Kei* Kel K&W Ken K&F Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Mnd Mau May JCM JMM McK McM Mic Mhl Mls Min MV M&S Mzy Neb Nef NK OV Old Pg Pks HP JMP Pir Pnt Ptt Por Pri Pug Qkr *Rtk* Raw Ren Rce Roc Rog Rs RP Sal S&R SC S&B Shw S&O Shm Sim Sox Spf Sqr Stk Stw S&H S&W Tex Thr Thb Til Tpk Vl Vau Vin Wer W&D Wea Wll Wd WS Wyg Yng Y&H.

SIMILAR NAMES. McLean's Improved Little Gem, Improved Little Gem, McLean's Little Gem, Premium Gem, Premium Little Gem, Extra Early Premium Gem, McLean's Premium Gem, Carter's Premium Gem, Carter's Extra Early Premium Gem, Early Premium Gem, Dwarf Gem Improved, Sutton's Emerald Gem, White Gem, Emerald Gem.

SEEDSMEN'S SYNONYMS. *Premium Gem*, Ken.

Little Giant. D&H.

Similar names. Pearce's Little Giant, Darch & Hunter's Little Giant.

Livingston's First in Market, Livingston's Prolific Giant Sugar. Entered as *First in Market* and *Prolific Giant Sugar.*

Lohrman's Earliest Wrinkled. Loh. For similar names see *Early Wrinkled.*

Lohrman's Midsummer. Loh.

Similar names. Salzer's Midsummer, May's Midsummer.

Long Island Mammoth. All Brd Blg Bgs Bui *Bur CE* Cle C&B CF Crs DD Drr Gls GH Grn Hrs Hme Iml J&S Lnr Man Mau May *JMM* Mhl Min M&S *Neb* OV Ptt Rce Rog Shw Vau Y&H.

Seedsmen's synonyms. *Telegraph*, Blg Bui J&S Lnr Nol Thr. *Giant-Podded Marrowfat*, Hlm.

Long Island Marrowfat. Cle G&T Koe Lan Vk.

Similar names. See *Marrowfat.*

Longstreth's First and Best. Entered as *First and Best.*

Luscious Melting Sugar *GN.*

Luscious Sugar. Kg *Rce.*

Similar names. Mammoth Luscious Sugar, Wood's Mammoth Luscious Sugar, Mammoth Luscious Salad, Salad.

McCullough's Improved Telephone. Entered as *Telephone.*

McKenzie's Extra Early Manifold. Entered as *Extra Early Manifold.*

McLean's Advancer, McLean's Blue Peter, McLean's Improved Little Gem, McLean's Little Gem, McLean's Premium Gem. Entered as *Advancer, Blue Peter, Little Gem,* and *Premium Gem.*

McLean's Prolific. Ewg Gra Hme.

Similar names. Laxton's Prolific, Laxton's Prolific Long Pod, Island Prolific.

McMillan's Best. McM.

Similar names. Burpee's Best.

McMillan's Satisfaction. McM. For similar names see *Sutton's Satisfaction.*

McNeal. *Gfg.*

Magnificent. Evr.

Magnum Bonum. Tat.

Main Crop Long Island Marrowfat. Lan Stw.

Similar names. See *Marrowfat.*

Mammoth Beauty. Mls. For similar names see *English Beauty.*

Mammoth Gray Sugar. Mzy Thr.

Similar names. See *Gray Sugar, Mammoth Sugar.*

Mammoth Luscious Salad. MWJ.

Similar names. See *Luscious Sugar, Mammoth Sugar.*

Mammoth Luscious Sugar. Iow Mau Wd WS.

Similar names. See *Luscious Sugar, Mammoth Sugar.*

Mammoth Melting Sugar. Alr Brt *Ber* Buc Bur *CE* Col Cok Drr Hrs Haw Hlm *Mns May* M&S Prn Rce Roc S&F Shw Thr *Wat.*

Similar names. See *Melting Sugar, Mammoth Sugar.*

Mammoth Perfection. Til. For similar names see *Perfection.*

Mammoth Prolific Sugar. J&S. For similar names see *Mammoth Sugar.*

Mammoth Sugar. Bkt Bui Dlw GH MV Sal *Sox* Wer.

Similar names. Mammoth Luscious Sugar, Wood's Mammoth Luscious Sugar, Mammoth Luscious Salad, Mammoth Melting Sugar, Buckbee's Mammoth Melting Sugar, Mammoth Gray Sugar, Giant Sugar, Livingston's Prolific Giant Sugar, Prolific Giant Sugar, Mammoth Prolific Sugar.

Mann's Hundredfold. Entered as *Hundredfold.*

Marblehead Early Marrowfat. Ggy. For similar names see *Marrowfat.*

Market Garden. Del Hnt Min M&S.

Similar names. See *Horsford's Market Garden.*

Seedsmen's synonyms. *Moore & Simon's Second Crop,* M&S.

Market Gardener's Extra Early. Gra Hlm.

Similar names. See *Extra Early Market.*

Market Gardener's Favorite. Qkr. For similar names see *Canner's Favorite.*.

Market Master. J&S.

Marrowfat. Fld Gng Hnt MWJ Mic Nl *Pnt.*

Similar names. Sugar Marrows, Exhibition Marrowfat, Long Island Marrowfat, Main Crop Long Island Marrowfat, Marblehead Early Marrowfat, Sander's Marrowfat, Royal Dwarf Marrowfat, Dwarf Marrowfat, Giant-Podded Marrowfat, Improved Giant-Podded Marrowfat, Improved Sugar Marrowfat, Nutting's Green Marrowfat, Green Marrowfat, Simon's Green Marrowfat, Dwarf Giant-Podded Prolific Green Marrowfat, Dwarf Green Wrinkled Marrowfat. See also *White Marrowfat* and *Black-Eyed Marrowfat.*

Matchless Wonder. NK *S&H.* For similar names see *English Wonder.*

Maud S. All Alr Brt *Bgg* Brk Bri Buc Brb Brr *CE* Cle Col CF Crg Drw Dun Emr Fmr Fqr Fax Frd Gls GH Ggy Grw TG Jns Kel Kra Lnr *LB* Mnd *May* JCM *JMM Pg Pnt* Pri Raw Rce Roc Sal S&F *Shw* S&O Shm Spf Tat Til Vau *Y&H.*

Similar names. Allan's Maud S., Barrett's Maud S., Extra Early Maud S.

Seedsmen's synonyms. *First and Best,* Frd.

Maule's Earliest of All, Maule's Family Garden, Maule's Improved Extra Early. Entered as *Earliest of All, Family Garden,* and *Extra Early.*

May. SC Shm. For similar names see *Early May.*

May's Midsummer. May. For similar names see *Lohrman's Midsummer.*

May Queen. Fer Ggy *Jns Lnr* M&S For similar names see *Queen.*

Medium Early Heroine. Mzy. For similar names see *Heroine.*

Melting Sugar. Alx Blg Bow Bdg Bgs Brn Bui Brb Brr Cle C&B CCo *Cox* Crs Cur DD *Drr* Ebe Ebr Fqr Fer GH Ggy Gry G&T Ham Hen H&C Hme Iml J&S Jns K&W Lam Lan Lnr LB Liv JL Loh Mgd Mns Mau JCM JMM Mhl MV Nol JMP Poo Por Pug Rog Rs S&R Shm Sie Sox *Spf* S&W Tat Tem Til Vau Vk Wea Web Yng.

Similar names. Tall Melting Sugar, Tall French Melting Sugar, Mammoth Melting Sugar, Buckbee's Mammoth Melting Sugar, Sugar, Edible Pod Sugar, Edible Pod White Sugar, Wrinkled Sugar.

Michael's Early Record. Entered as *Early Record.*

Michell's Dandy Extra Early, Michell's Extra Early. Entered as *Dandy Extra Early* and *Extra Early.*

Mills' Enormous, Mills' Mammoth Beauty. Entered as *Enormous* and *Mammoth Beauty.*

Mingle's Extra Early. Entered as *Extra Early.*

Moore's Bountiful, Moore's Daisy. Entered as *Bountiful* and *Daisy.*

Moore & Simon's Second Crop. Entered as *Second Crop.*

Morning Star. Cam Chl *Gls* Ham.

Similar names. Childs' Morning Star, Hammond's Morning Star, Early Morning Star, Extra Early Morning Star, Extra Early Star.

Nebraska Lightning. Neb S&O. For similar names see *Lightning.*

Nebraska Seed Co.'s First and Best, Nebraska Seed Co.'s Favorite. Entered as *First and Best* and *Favorite.*

Negro. MWJ.

Ne Plus Ultra. All Bdg Mzy Rce Sqr.

New Era. MWJ.

New York Market. W&D.

Niles. Pug.

Seedsmen's synonyms. *Small White Field,* Pug.

Noll's Extra Early. Entered as *Extra Early.*

Nonpareil. M&S.

Similar names. Extra Early Nonpariel, Tait's Extra Early Nonpareil.

Northern Leader. Jer.

Northern Queen. *McK.*

Northrup, King & Co.'s Summit Extra Early, Northrup, King & Co.'s Improved American Wonder. Entered as *Extra Early Summit* and *American Wonder.*

Northwest Premier. May McK OV *Tpk.*

Similar names. See *Premier Extra Early.*

Nott's Excelsior. All Alr Ar Bak Brd Brt Btl Bkt Bel Ber Blg Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr Brw C&J CE Cle C&B CF Cox Crs Cur Chm Dlw Del DD Drr Drw Drm Dun Eas Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fer Fld Fle Frd Gls Gdn GH Gra GN Ggy Grn Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Haw Hen Hbt H&C Hly Hlm Hse Hme H&P Iml Iow Jer MWJ RHJ J&M J&S Jns Kel K&W Ken K&F Kg Kos Kra Lam Lan Lnr LB Liv JL Man PM Mas Mau May JCM JMM McK McM Mic Mhl Mls MV M&S Mzy Neb Nol NK OV Old Pg HP JMP Pir Prn Pne Ptt Poo Pot Pri Pug Raw Ren Ree Roc Rog Rs Sal S&R SC S&F S&O Shm Sie Sim Sox Spf Sqr SB Stw S&H S&W Tem Tex *Thm* Thr Thb AGT *Tlh* Til *Tpk* Trm Vl Vau Vk Wat Wea W&D Wer Wll Wd Wdr WS Wyg Yng Y&H.

Similar names. Breck's Excelsior, Wood's Lightning Excelsior, Excelsior, Lightning Excelsior.

Nott's Perfection. *D&H* Frd Ham J&S Mau Ptt.

Similar names. See *Perfection.*

Omega. Hme RHJ.

Nutting's Green Marrowfat. Lan. For similar names see *Marrowfat.*

Paragon. Brb Ggy Grn Lan Mzy JMP Pot Pri Ree Rog Stk Y&H.

Pearce's Little Giant. Entered as *Little Giant.*

Peep O'Day. Brr.

Perfect. Bur. For similar names see *Perfection.*

Perfection. All McK.

Similar names. Perfect, Veitch's Perfection, Nott's Perfection, Grey's Perfection, Shumway's Earliest Perfection, Earliest Perfection, Tilton's Mammoth Perfection, Mammoth Perfection.

Seedsmen's synonyms. *Blue Beauty*, All.

Perkins' Extra Early. Entered as *Extra Early.*

Perpetual. CCo Mau.

Similar names. Walker's Perpetual.

Perry's Forty-Two Day. Entered as *Forty-Two Day.*

Peruvian Black-Eyed Marrowfat. Dlw Lan Stw.

Similar names. See *Black-Eyed Marrowfat.*

Petit Pois. Fqr Hen.

Seedsmen's synonyms. *French*, Hen. *French Canner*, S&F. *Small Early French*, Fqr.

Philadelphia. G&T McM Mzy Nol Thr.

Similar names. See *Extra Early Philadelphia.*

Philipps' Extra Early, Philipps' First and Best. Entered as *Extra Early* and *First and Best.*

Phonograph. Lan.

Pierson's Extra Early. Entered as *Extra Early.*

Plant's Earliest Dwarf, Plant's Extra Early, Plant's Second Early. Entered as *Earliest Dwarf*, *Extra Early*, and *Second Early.*

Premier Extra Early. Alx Bur Gdn Min Qkr Rog Vk WS.

Similar names. Improved Premier Extra Early, Northwest Premier.

Seedsmen's synonyms. *First and Best*, Alx.

Premium Gem. All Bai *Bak* Brd Brt Btl Bkt *Bel* Ber Blg Bow Bgg Brk Bdg Bgs Brn Bui C&J CE Cle CF Cok Crg Cur CA Chm Dlw D&H Del Drr Drw Ebe Ebr Fqr Fer Fld Frd Ger Gls GH Gra Grn G&T Grw TG Hns Hrn Hrs Hrv Hst Hen Hop Hme Hnt H&P Iml Iow MWJ J&M *Jns* Kel K&W Ken Kg Lam Lan Lea Liv JL Loh Mnd Man PM Mas Mau May JCM Mhl Min MV Mzy Neb OV Pac JMP Pir Pnt Por Pot Pug Rim Rog Rt Rs RP S&R S&O Shm Sie Sox *Spf* Sqr SB S&H Tat Tex TB Thm Thr Til *Tpk* T&B Vl Wea Wer Wlt.

Similar names. See *Little Gem.*

Seedsmen's synonyms. *Little Gem*, Ken.

Premium Little Gem. Trm. For similar names see *Little Gem.*

Price & Knickerbocker's Improved Extra Early. Entered as *Extra Early.*

Price & Reed's Dandy, Price & Reed's Extra Early, Price & Reed's Lightning. Entered as *Dandy*, *Extra Early*, and *Lightning.*

Pride of Denver. Hns.

Pride of the Garden. Mls. For similar names see *Pride of the Market.*

Pride of the Market. All Alr Bai Brd Brt Btl *Blg* Bow Bgg Brk Bdg Bri Brn Buc Bui Bur Brw Cam *CE* Cle C&B CF Crs Cur Del DD Drr Drm Dun Ebr Emr RE Evr Fmr Fqr Fst Fer Frd Ggy Grn G&T TG Hns Hde Hrm Hrn *Hst* Hen H&C Hlm Hme H&P MWJ J&S *Jns* Kei K&F Lan Lea Lnr *LB* Liv *Mns* Mau May JCM JMM McK Mhl Min M&S Mzy Nol OV Pg Pks HP Prn Pnt Ptt Pot Raw Ren Rce Rim Roc RP SC Shw S&O Sim Sox Spf Stw *S&H* TB Thr Til *Tpk* Trm Vk Vl Vau *Wea* Web W&D Wyg Y&H.

Similar names. Carter's Pride of the Market, Improved Pride of the Market, Pride of the Garden.

Seedsmen's synonyms. *Golden Sugar*, Mls.

Prince Albert Field. Rog Sqr. For similar names see *White Field.*

Prince of Wales. All D&H Ewg Fmr GH Gra Hrm Hme Lan Man May NK OV Rce Rog RP Sal S&O Sqr *Stk* Thr Wll.

Similar names. Prince of Wales Heavy Cropper.

Prince of Wales Heavy Cropper. Fmr Mzy.

Similar names. See *Prince of Wales.*

Princess Royal. Hme.

Prize Taker. DD M&S.

Similar names. Dickmann's Prize Taker.

Prodigious. Mau *Tlh.*

Profusion. Bur RE Frd Hbt Lan Sim Thr.

Similar names. Burpee's Profusion, Dwarf Profusion.

Prolific Early Market. *Liv* Mau.

Prolific Giant Sugar. Evr Ggy Liv Ptt. For similar names see *Mammoth Sugar.*

Prosperity. Alr Brk Bri Buc Bui Bur Brr C&J *CE Chl* CA DD Drr Drw Dun Ebe Evr Ewg Gls GN TG Ham Hrm Hrn Hrs Hst Hen H&C H&P Iow J&M J&S *LB* Lnr Liv Mau *McK* Mls *Pac* Pne Raw Ren Rce Sal Shw Sie *Stk* Tat Thb AGT T&B Vl Vau W&D *Wer* Wll Wd WS.

Similar names. Rennie's Prosperity.

Seedsmen's synonyms. *Allan's Gradus*, Evr. *Early Giant*, Ptt. *Early Gradus*, Buc Roc. *Extra Early Gradus*, Bui. *Extra Long Pod*, Ptt. *Gradus*, Bur Drr Fqr Fer Mau Raw, etc.

Quality. Bai Bur. For similar names see *Quantity.*

Quantity. Bur Hlm Lan.

Similar names. Burpee's Quality, Burpee's Quantity, Quality.

Queen. Brd Bdg Buc C&J *CE* Col D&H Elt Emr *Hrs* Ken McK Raw Ren Rce Roc Rog S&F Shw Thr W&D.

Similar names. Improved Queen, Sharpe's Improved Queen, Sharpe's Queen, Rennie's Queen, May Queen, Summer Queen, British Queen, Southern Queen.

Ram's Horn. Sqr.

Rawson's Clipper. Entered as *Clipper.*

Red Ripper. MWJ.

Reliance. Bur Hen *Wdr.*

Rennie's Extra Early, Rennie's Prosperity, Rennie's Queen. Entered as *Extra Early, Prosperity,* and *Queen.*

Rice's Extra Early, Rice's Improved Dwarf Champion. Entered as *Extra Early* and *Dwarf Champion.*

Rough Rider. Sal.

Similar names. Salzer's Rough Rider.

Royal Dwarf Marrowfat. Anb *Eic* Ggy Hly May Rog Stk.

Similar names. See *Marrowfat.*

Royal Dwarf White Marrowfat. Ar Brd Brb Bui Bur Eic Fst TG H&C Hlm J&S K&W Mhl.

Similar names. See *White Marrowfat.*

Rural New Yorker. All Brd Btl Blg Bgg Buc Brb *CE* Cle Crg DD Ebe Ebr Emr RE Fer GH Grn G&T TG Hns Hrm Hrv Iow K&W Kg Lan Lea *LB* Man *Mus* May MV Mzy Pg HP Ptt Rce Roc RP Sal Shw *Sox* Sqr SB Tat Til Vl *Wea.*

Similar names. Extra Early Rural New Yorker, Cleveland's Rural New Yorker.

Rush Park Seed Co.'s Extra Early. Entered as *Extra Early.*

St. Disirat. Mzy.

St. Duthus. Bur Thr.

Salad. MWJ. For similar names see *Luscious Sugar.*

Salzer's Dwarf Telephone, Salzer's Earliest Dwarf Jumbo, Salzer's Rough Rider. Entered as *Dwarf Telephone, Earliest Dwarf Jumbo,* and *Rough Rider.*

Salzer's Midsummer. Sal. For similar names see *Lohrman's Midsummer.*

Sander's Marrowfat. Bdg Hme. For similar names see *Marrowfat.*

Schisler-Corneli First of All. Entered as *First of All.*

Scimitar. Eas SB.

Scotch Beauty Field. Ber Iow. For similar names see *White Field.*

Scotch Blue Field. Frd Rog. For similar names see *White Field.*

Scotch Field. Cur GH Kos. For similar names see *White Field.*

Second Crop. M&S.

Similar names. Moore & Simon's Second Crop.

Seedsmen's synonyms. *Market Garden,* M&S.

Second Early. DD Pnt.

Similar names. Plant's Second Early.

Senator. All.

Similar names. Webb's Senator.

Sensation. Hme.

Sharpe's Improved Queen. Entered as *Sharpe's Queen.*

Sharpe's Queen. All *Brd* Brk Bri *Brb* Brr CE CF Fqr Grn TG Hrm H&C Hme H&P J&S Lnr May Min Neb OV *Rce* Sqr Til *Vl.*

Similar names. See *Queen.*

Sharpe's Triumph. All Hme. For similar names see *Triumph.*

Shropshire Hero. All Bai Brd Brt Blg *Bgg* Brk Bdg Bgs Bng Buc Bui Bur Brr *CE* Cle C&B Col CF Crs Cur Drr Drm Ebr Elt Fqr Fer Frd *Gls* Gdn GH Ggy Grn G&T TG Hen H&C Hme J&S Ken Lan Lnr Liv Mnd Mgd Mas Mau McK Mhl Neb Nol OV Pg Pnt Ptt Qkr Raw Ren Rce Roc Rog S&F S&O Shm Spf Sqr SB Thr *Tpk Trm* Vau Vk Wea W&D.

Similar names. Yorkshire Hero, Improved Hero.

Shumway's Earliest Perfection, Shumway's Extra Early Philadelphia. Entered as *Earliest Perfection* and *Extra Early Philadelphia.*

Siegel's Extra Early. Entered as *Extra Early.*

Simon's Fillbasket, Simon's Green Marrowfat. Entered as *Fillbasket* and *Green Marrowfat.*

Small Early French. Fqr W&D. For similar names see *French Canner.*

Seedsmen's synonyms. *Petit Pois,* Fqr.

Small White Field. Por Pug S&R. For similar names see *White Field.*

Seedsmen's synonyms. *Niles,* Pug.

Southern Queen. Hst. For similar names see *Queen.*

Springfield Seed Co.'s Extra Early. Entered as *Extra Early.*

Squier's Dandy. Entered as *Dandy.*

Startler. Buc Roc.

Similar names. Buckbee's Startler.

Station. Ggy Grn Liv Thr.

Steele-Briggs' Extra Early. Entered as *Extra Early.*

Stratagem. Alx All Alr Anb Ar Bai Brd Brt Btl Ber Blg Bow Bgg Brk Bdg Bgs *Bri* Brn Bru Buc Bui Brb Bur Brr Brw C&J Cam CE Cle C&B Col CF Cox Crg *Crs* Cur Dlw Del DD Drr Drw Drm Dun Eas Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Fld Fle Frd Ger Gdn GH Gra Gng GN Ggy Grn Gry G&T Grw TG Hns Ham Hrm Hrn Hrs Hen Hbt H&C Hop Hme H&P Iow Jac *MWJ* RHJ J&M J&S Jns Kei Kel K&W Ken Kg Kos Kra Lam Lan Lea Lnr LB Liv JL Mnd Mgd Mau JCM JMM McK McM Mic Mhl Min MV M&S Mzy Neb NK OV Old Pac Pg Pks HP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Raw Ren Rce Roc Rog Rt Rs RP S&R SC S&F Shw S&O Shm Sim Sox Spf Sqr Stk *S&H* Thm Thr AGT Til Tpk Trm T&B *Vl* Vau Vk Vin Wat Wea Web W&D Wer Wd WS Wyg Y&H.

Similar names. Improved Stratagem, Carter's Stratagem, Cleveland's Stratagem, Hammond's Improved Stratagem.

Strawberry. Buc Roc Shm.

Seedsmen's synonyms. *Extra Early Tom Thumb,* Buc Roc.

Sugar. Blg Ewg Fld Hnt J&M S&H Wyg.

Similar names. See *Melting Sugar, Tall Sugar.*

Sugar Marrowfat. All G&T Haw Hme J&S Lan Mns Pnt Rce.

Similar names. See *Marrowfat.*

Summer Queen. WS. For similar names see *Queen.*

Summit. *Fld.*

Sunol. All Bkt Ggy *May* Mzy Ptt Trm.

Similar names. Allan's Sunol.

Supreme. Sim.

Similar names. Laxton's Supreme.

Sunrise. *H&C* Hme.

Similar names. Early Sunrise.

Surprise. All Brd Bkt Bgg Brk Bdg *Bri Brw* Bur C&J *Crs* Der Eas Fqr Fer Frd Ggy Grn Hlm J&S *Jns* Lnr Liv JL Mau Mls Neb Prn Raw *Ren* S&H Thr Til Vau W&D Vk *Y&H.*

Similar names. Gregory's Surprise, Early Surprise.

Seedsmen's synonyms. *Eclipse,* Brk J&S Pnt Rce Wdr.

Sutton's Emerald Gem. Entered as *Emerald Gem.*

Sutton's Excelsior. *Fqr.*

Sutton's Satisfaction. J&S Lan Rog.

Similar names. McMillan's Satisfaction.

Sweet Market. Vau.

Similar names. Vaughan's Sweet Market.

Swiss. Lam Por S&R.

Tall Erfurt Sugar. Thr. For similar names see *Tall Sugar.*

Tall French Melting Sugar. Ptt.

Similar names. See *Melting Sugar*, *French Sugar*, *Tall Sugar*.

Tall Gray Sugar. Ar Brk Bur *CE* Cle Dun GH G&T *Hlm* H&P J&S *Jns* Lnr May Neb *Pac* Ptt Rce Rog Sox S&W T&B *Vl* Vau Web Wer Wyg.

Similar names. See *Gray Sugar*, *Tall Sugar*.

Tall Green-Seeded Sugar. Rog. For similar names see *Tall Sugar*.

Tall Melting Sugar. Pnt SC. For similar names see *Melting Sugar*, *Tall Sugar*.

Tall Purple Blossom Sugar. Lan. For similar names see *Tall Sugar*.

Tall Scimitar Sugar. Sim. For similar names see *Tall Sugar*.

Tall Sugar. Bui Brr Cox Crs DD Eic Elt Emr RE Fst Gra Hrs Hst Hlm Ken Liv MV Mzy HP Pri Qkr Sal Spf Stk Vin W&D.

Similar names. Tall White Sugar, Tall Green Seeded Sugar, Tall Scimitar Sugar, Tall Erfurt Sugar, Tall Purple Blossom Sugar, Tall Gray Sugar, Tall Melting Sugar, Tall Mammoth Sugar, Tall French Melting Sugar, Sugar.

Tall White Blossom. *Hlm.*

Tall White Marrowfat. Gdn Jac May. For similar names see *White Marrowfat*.

Tall White Sugar. Cle Drr Lan Nef Rog. For similar names see *Tall Sugar*.

Tait's Extra Early Deposit, Tait's Extra Early Eclipse, Tait's Extra Early Nonpareil, Tait's Hancock. Entered as *Extra Early Deposit*, *Extra Early Eclipse*, *Extra Early Nonpareil*, and *Hancock*.

Teddy Roosevelt. NK.

Telegraph. All *Brd* Bkt Blg Bdg Bgs Buc Bui *CE* Cle CF *Crs* Drr Ewg Fer GH Grn G&T TG *H&C* Hme H&P J&S Lan Lnr *LB* Mnd JMM McK Mzy Nol Pg Ren Rce Roc Rog Sqr Thr *Vl*.

Similar names. Culverwell's Telegraph.

Seedsmen's synonyms. *Long Island Mammoth*, Blg Bui J&S Lnr Nol Thr.

Telephone. Alx All Alr Ar Bai *Bak* Brd Brt Btl Bkt Bel Ber Blg Bow Bgg Brk Bdg Bgs Bri Brn Buc Bui Brb Bur Brr Brw C&J CE Cle C&B CF Cox Crg Crs Cur Chm Dlw Del DD Drr Dun Eas Ebe Ebr Eic Elt Emr RE Evr Fmr Fqr Fst Fer Frd Ger Gls Gdn GH Gra Ggy Grn Gry G&T Grw TG Hns Ham Hrm Hrn Hrs Hrv Hst Haw Hen H&C Hlm Hop Hse Hme H&P Iml Iow Jer MWJ RHJ J&M J&S Jns Kei Kel K&W Ken Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Lon Mnd Mgd PM Mas Mau May JCM JMM McK McM *Mic* Mhl Min MV M&S Mzy Neb Nef Nol NK OV Old Pg HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Raw Ren Rce Roc Rog Rs RP S&R SC S&F S&B Shw S&O Shm Sie Sim Sox Spf Sqr Stk S&H S&W Tat Tem TB Thm Thr *Thb* Til *Tpk* Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wer Wd WS Wyg Yng Y&H.

Similar names. Carter's Telephone, Ebeling's Telephone, Allan's Improved Telephone, Hammond's Improved Telephone, Extra Early Telephone, Dwarf Telephone, Allan's Dwarf Telephone, Salzer's Dwarf Telephone.

The Unknown. MWJ.

Thomas Laxton. *Brk* Bru Cur *Drr Ger Ggy Hrm Lnr* Pnt *Thr* Vk.

Thompson's First of All. Entered as *First of All*.

Thorburn's Extra Early Market. Entered as *Extra Early Market*.

Tilton's Cleveland Market, Tilton's Mammoth Perfection. Entered as *Cleveland Market* and *Mammoth Perfection*.

Tom Thumb. Alx All Alr Anb Ar Btl Brk Bdg Bgs Bur Cam CE Cle Crg Crs Dlw DD Eic Fmr Fqr Fst Fld Gdn GH Ggy Grn Gry Grw Hns Hrn H&C Hlm Jac J&S Jns K&F Kg Kos Lan Lnr JL Mau May JCM JMM *Mel* Min Neb OV Pac Pnt Qkr Ren Rce Rog RP Sal SC *Shw* S&O Sox Spf Sqr Tat TB *Tpk* Trm Vau W&D Wer Wd WS.

Similar names. Tom Thumb Plentiful, Dwarf Tom Thumb, American Tom Thumb, Blue Tom Thumb, Improved Tom Thumb, Cleveland's Improved Tom

Thumb, Early Tom Thumb, Extra Early Tom Thumb, Buckbee's Extra Early Tom Thumb, Ferry's Extra Early Tom Thumb.

Seedsmen's synonyms. *Plant's Earliest Dwarf,* Pnt K&F.

Tom Thumb Plentiful. M&S. For similar names see *Tom Thumb.*

Triumph. G&T Mns Sqr.

Similar names. Sharpe's Triumph.

Trucker's First and Best. Hnt. For similar names see *First and Best.*

Tuxedo. Y&H.

Universal. Chl.

Similar names. Childs' Universal.

Vaughan's Improved Telephone, Vaughan's Sweet Market. Entered as *Telephone* and *Sweet Market.*

Veitch's Perfection. Dun Elt Ewg Gra *RHJ* Por Pug S&R W&D.

Similar names. See *Perfection.*

Very Dwarf Sugar. Hen *S&W.* For similar names see *Dwarf Sugar.*

Vick's Charmer, Vick's Daisy, Vick's Extra Early, Vick's King of the Dwarfs. Entered as *Charmer, Daisy, Extra Early,* and *King of the Dwarfs.*

Victory. Hen M&S.

Vincent's Advancer. Vin. For similar names see *McLean's Advancer.*

Walker's Perpetual. Hme. For similar names see *Perpetual.*

Webb's Senator. Entered as *Senator.*

Wernich's First and Best. Entered as *First and Best.*

White Champion. Tat. For similar names see *Champion of England.*

White Crowder. MWJ. For similar names see *Yellow Crowder.*

White-Eyed Marrowfat. Bri *Sie Vl.*

White Field. Buc Hme MWJ *Lur* Web.

Similar names. Improved Field, Small White Field, Prince Albert Field, Scotch Field, Scotch Blue Field, Scotch Beauty Field.

White Gem. Hme. For similar names see *Little Gem.*

White Marrowfat. Alx Alr Anb Bai Bak Btl Bkt Bdg Bri Bng Brr Cle C&B Cur Del Dun Ebr Emr RE Ewg Fmr Fqr Gls Gra Hrm Hrn Hrs Hrv Hen Hse H&P J&S Ken Kg Lan Liv Mns Mau MV Mzy NK HP Pir *Pnt* Ptt Rog S&B Sox Spf S&H TB Thm Thr Vl *Vau* Wll Y&H.

Similar names. Tall White Marrowfat, Large White Marrowfat, Improved White Marrowfat, Improved White Sugar Marrowfat, Irish Large White Marrowfat, Irish Dwarf White Marrowfat, English Dwarf White Marrowfat, Royal Dwarf White Marrowfat, Dwarf White Missouri Marrowfat, Dwarf White Sugar Marrowfat, White Sugar Marrowfat, Large Dwarf White Marrowfat, Dwarf White Marrowfat. See also *Marrowfat* and *Black-Eyed Marrowfat.*

White Sugar Marrowfat. Tat. For similar names see *White Marrowfat.*

William Hurst. All Bai Bgg Brk Buc Bur *CE* Cox D&H Emr Ggy Haw Hme J&S *Lur* Liv McK Old Ren Rce Roc *Sim* Sqr *Thr.*

Similar names. William the First.

William the First. Hme. For similar names see *William Hurst.*

Will's First of All. Entered as *First of All.*

Wisbech Wonder. Hme. For similar names see *English Wonder.*

Wisconsin Blue. Hme Sqr.

Witham Wonder. *Lur.*

Wonderful. *MWJ* Pg.

Similar names. Page's Wonderful.

Wood's Extra Early, Wood's Lightning Excelsior, Wood's Acme, Wood's Mammoth Luscious Sugar. Entered as *Extra Early, Lightning Excelsior, Acme,* and *Mammoth Luscious Sugar.*

Wood, Stubbs & Co.'s Express. Entered as *Express.*

Wrinkled Sugar. Bdg. For similar names see *Melting Sugar.*

Yellow Crowder. MWJ.

Similar names. White Crowder.

Yorkshire Hero. Alx All Bai Brd Btl Bow Bgg Brk Bdg Brn Bng Buc Bui Brb Bur Brr C&J *CE* Cle C&B CF Cox Crs CA D&H Drr Dun Ebe Ebr Elt Emr Ewg Fst Fax Fer Frd Ger GH Gra Ggy Grn Gry G&T Grw TG Hns Hrm Hrs Hrv Haw Hbt Hlm Hme *MWJ* RHJ J&M J&S Jns Kei Kel K&W Lam Lan Lnr LB Mnd PM Mas Mau May JCM JMM McK McM Mic Mhl Min MV M&S Mzy Nol NK OV Pac *Pg* Pks Prn Ptt Por Pot Pri Pug Qkr Raw Ren Rce Roc Rs RP S&R S&F S&O Sie Sim Sox Sqr S&H Tat Tem Thr Til *Tpk Trm* T&B Vau Vk Vin *Wat* Web W&D Wll Wd WS Y&H.

Similar names. See *Shropshire Hero.*

Seedsmen's synonyms. *Alameda Sweet*, Cox. *Big Gem*, NK. *Dwarf Champion*, Mzy Prn Ptt Rs.

PEANUT.

Peanut. Anb Btl Cox Fld Ger Grw J&S Koe Mgd Mau Neb SC Shm Sim Tat Trm T&B Vin.

African Goober. Alx CCo.

Champion. Cok.

Early Sweet. Chl.

Early Virginia. Brd Sal. For similar names see *Virginia.*

Extra Early Spanish. JL. For similar names see *Spanish.*

Faust's Improved. Fst.

Florida. Cam.

Georgia Improved Ground Pea. J&S Shw.

Hammond's Earliest Mammoth. Ham.

Improved Ground Pea. Mau Sim.

Improved Virginia. Liv Tem Tex WS. For similar names see *Virginia.*

Large White. Hde.

Large White Luxury. MWJ.

Mammoth. Wlt.

Mammoth Virginia. Buc Kra JL Old Roe Vau. For similar names see *Virginia.*

Old Hickory. MWJ.

Red. Del Pnt.

Red Cross. Iow Kos.

Red Spanish. Ar. For similar names see *Spanish.*

Red Virginia. Shw. For similar names see *Virginia.*

Rennie's Canadian. Ren.

Savatilla. D&H.

Savatilla Spanish. CCo. For similar names see *Spanish.*

Small Spanish. Hde. For similar names see *Spanish.*

Spanish. Alx Bak Brd Bur Cam Col CA RE Frd Gdn Gfg Ham Hst H&C Iow MWJ J&M J&S Liv Pnt Sal Shw Stk Tem Tex Thm Wlt Wd WS.

Similar names. Small Spanish, Red Spanish, Extra Early Spanish, Savatilla Spanish.

Steckler's White Mammoth. Stk.

Tennessee Red. Ar Eic.

Virginia. Alx Alr CA Gdn GN Wd.

Similar names. White Virginia, Red Virginia, Mammoth Virginia, Early Virginia, Improved Virginia.

White. Del Mls Pnt.

White Virginia. Ar Shw. For similar names see *Virginia.*

PEPPER.

Bell. Bak Blg Bgg Brb Brr Cle CF Ebe *Eic* Emr Fqr Gra Gng G&T Grw TG Ham H&C J&S Kg Lnr Mgd Man PM Mns Mls NI Pac Pg *Pnt* Ptt Qkr S&F *Shw* Sim Stk TB Web Wd WS.

Similar names. Large Bell, Improved Large Bell, Sweet Bell, Large Sweet Bell, Large Red Bell, Mammoth Bell, Golden Bell.

Seedsmen's synonyms. *Bull Nose*, Emr Fqr G&T J&S Lnr S&F, etc. *Sweet Mountain*, Ptt. *Improved Bull Nose*, Sim. *Large Squash*, Sim. *Large Bull Nose*, CF.

Bird's-Eye. Bur Drr Eic Ger J&M Lan M&S Shw Stk S&W Thm.

Seedsmen's synonyms. *Creole*, Bur Drr J&M S&W Thm Vin, etc. *Small Chili*, Ger.

Black Mexican. Gra. For similar names see *Mexican.*

Black Nubian. Bgs Buc *Bur CE* Cle Ewg *Mls* Ren Rce Roc Shm Sim.

Bolgiano's Mammoth Ruby King. Entered as *Mammoth Ruby King.*

Bonnet. Lan.

Seedsmen's synonyms. *Squash*, Lan. *Tomato*, Lan.

Boston Squash. TG. For similar names see *Squash.*

Seedsmen's synonyms. *Tomato*, TG.

Bull Nose. Alx Alr Bai Bak Brd Brt Bkt Bel Ber Blg Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur C&J Cam CE Cle C&B Col Cox Crs Cur CA *Dlw* D&H DD Drr Drm Ebe Ebr *Eic* Elt Emr RE Evr Fmr Fqr Fst Fax Fer Fle Frd Ger Gls Gdn GH Gra Gng GN Gry G&T Grw TG Ham Hde Hrm Hrn Hrs Hrv Hst Hen Hbt H&C Hlm Hop Hse Hnt H&P Iml Iow Jac J&M J&S Jns K&F Kg Koe Kos Lam Lan Lea Lnr LB Liv JL Loh Mns Mgd Man PM Mns Mas Mau May JCM JMM McM Mel Mic Mhl Mls Min M&S Mzy Neb Nef Nol NI NK OV Pac Pg Pks HP Prn Pnt Ptt Poo Por Pot Pri Pug Qkr Raw Rce Roc Rt RP S&R SC S&F Shw S&O Shm Sie Sim Sox Spf Stk SB Stw S&H S&W Tat TB Thm Thb Til Tpk Trm T&B Vl Vau Vk Wea Web W&D Wll Wlt Wd WS Wyg Yng Y&H.

Similar names. Improved Bull Nose, Large Bull Nose, Sweet Bull Nose.

Seedsmen's synonyms. *Bell*, Blg Emr Fqr G&T J&S Lnr, etc. *Large Bell*, Bui Bur Drr Fer Hen Iow, etc. *Large Red Bell*, SB. *Large Squash*, Sim. *Large Sweet Bell*, Gls Mhl. *Mammoth Bell*, Cam Gdn Jac. *Spanish Monstrous*, Wlt. *Sweet Mountain*, Bru Hrn.

Burpee's Golden King, Burpee's Golden Upright, Burpee's Mikado, Burpee's Ruby King. Entered as *Golden King*, *Golden Upright*, *Mikado*, and *Ruby King.*

Cardinal. Bgs Cle Crs RE Ewg Frd Gra Ggy Hen Ken Liv May M&S Mzy NK W&D.

Cayenne. Anb Ar Brd Btl Ber Bru Crg Crs CA Dlw Drm Ebr Ewg Fld Ger Gra Ggy G&T Hrs Hrv H&C Hnt H&P J&M Kei Lam Lan Lea Liv JL PM McK NI JMP Pir Prn Raw Ren Rt Rs Sal S&B Stw Thm W&D.

Similar names. Cayenne Pickling, Long Cayenne, Red Cayenne, Long Red Cayenne, Long Yellow Cayenne, Hammond's Long Red Cayenne, Small Cayenne, Small Red Cayenne, Little Red Cayenne, Large Red Cayenne.

Seedsmen's synonyms. *Long Red Cayenne*, Bur. *Chili*, JL.

Cayenne Pickling. Vau. For similar names see *Cayenne.*

Celestial. Alx Alr Ar *Brd* Brt Btl *Bgg* Brk Bdg Bgs *Bri* Buc Bui Bur *CE* Chl Cle Crs Cur CA D&H DD Drr Eas Ebe Ebr Elt RE Ewg Fqr Fst Frd Ger GH Gra Ggy Grw Ham Hrs Hly MWJ J&M J&S Kra Lan Lnr Liv Man May JCM JMM McM Mhl Mls MV M&S Nef Nol NK Ptt Pot Qkr Ren Rce Roc Sal S&O Shm Sim *Sox* Spf Stk SB Stw Tem Thr Trm Vk *Vau* Vin W&D.

Similar names. Childs' Celestial, Improved Celestial, Chinese Celestial.

Cheese. Min.

Cherry. Ar Brn RE Ewg Ger Gra Ggy Kei Ren Vau.

Similar names. Yellow Cherry, Red Cherry.

Childs' Celestial, Childs' Improved Celestial, Childs' Kaleidoscope. Entered as *Celestial* and *Kaleidoscope.*

Chili. Alx Bow Bru C&J Cam Cle C&B Cox *Crg* DD Eas Ebe *Eic* Elt RE Fqr Gdn Ggy Hde Hen Ken Lnr Man Mas McM Mzy Neb *Pac* Pir Pnt Poo Por Pot S&R SC Stk SB S&W T&B W&D.

Similar names. Small Chili, Red Chili, Small Red Chili, Yellow Chili, Mammoth Chili, Large Mexican Chili, Mexican Chili.

Seedsmen's synonyms. *Cayenne*, JL. *Mexican*, DD.

Chinese Celestial. Anb *Cam* Evr Vl. For similar names see *Celestial.*

Chinese Giant. Bur D&H Drr *Fax J&S Lan Mns* Mau *MWJ M&S Rim* Thr *Vk.*

Similar names. See *Procopp's Giant.*

Cluster. Pac.

Similar names. Japanese Cluster, Red Cluster, Japanese Red Cluster.

Columbus. Eic.

Coral Gem. *D&H* Drr Ebr RE Mhl Ree Sal S&F.

Similar names. Coral Gem Bouquet.

Coral Gem Bouquet. Buc Bur *CE* Col Cok D&H *Drm* Evr Fqr Fst Frd Hbt Hse Iml Iow J&M Liv JL Mau M&S Pnt Raw Ree Roc Rs *Wat* Vau Vk Wd WS.

Similar names. Coral Gem.

Seedsmen's synonyms. *Red Cluster*, M&S.

County Fair. Hen Liv.

Similar names. Henderson's County Fair.

Cranberry. GH Mzy.

Similar names. Red Cranberry.

Creole. Bur Drr J&M M&S Shw S&W Thm.

Seedsmen's synonyms. *Bird's-Eye*, Bur Drr M&S Shw Thm Vin.

Dwarf Red Squash. Hlm. For similar names see *Squash.*

Early Dwarf Red Squash. Bur *CE* Frd GH Hbt Raw Ree.

Similar names. See *Squash.*

Elephant's Trunk. Bui Eic RE Hde J&S Koe Mau Pac Thr Vau.

Flat. Ggy.

Seedsmen's synonyms. *Squash*, Ggy.

French Cayenne. Lan.

Giant Emperor. Ebr Mzy.

Giant of Valencia. Thr.

Giant Sweet Spanish. Kg. For similar names see *Sweet Spanish.*

Giant Yellow King Mango. Liv. For similar names see *Golden King.*

Golden Bell. Bui Hnt Lan HP Qkr Stw Wlt. For similar names see *Bell.*

Seedsmen's synonyms. *Golden Dawn*, Bui HP Qkr Roc Wlt.

Golden Dawn. Alx Anb Ar Bai Brd Btl Ber Brk Bdg Bgs Brn Bru Buc Bui Bur Brr Cam CE Cle C&B Cok Crs Cur Del DD Drr Drw Ebe Ebr Eic Elt Emr RE Evr Ewg Fqr Fst Fer GH Gra Ggy Gry Grw TG Hns Hrs Hrv Hen Hly Hlm Hop Iml J&M J&S Kra Lam Lnr LB Liv Man Mas Mau May JCM JMM McM Mel Mic Mhl Mzy Neb Nol NI NK OV Pac HP JMP Pnt Por Pot Pri Qkr Raw Ree Roc RP Sal S&R S&F S&O Shm Spf Stk SB S&W Tat Tem Tex TB AGT Tlh Tpk Trm Vl Vau Vk Wea Web W&D Wer Wyg.

Similar names. Golden Dawn Mango, Sweet Golden Dawn, Mammoth Golden Dawn.

Seedsmen's synonyms. *Golden Bell*, Bui HP Qkr Wlt. *Golden Queen*, Buc Roc Vk.

Golden Dawn Mango. Entered as *Golden Dawn.*

Golden King. Bur D&C GH Rim.

Similar names. Burpee's Golden King, Giant Yellow King Mango.

Golden Prize. Hst.

Golden Queen. Brt Bkt Buc Bur CE Cle Del Drm Ebe Fld G&T Ham H&C Hlm Liv Lon Mnd Mau May OV Ptt Roc *Sox Tpk Tem Vl* Vk.

Similar names. Mammoth Golden Queen, Improved Golden Queen.

Seedsmen's synonyms. *Golden Dawn*, Buc Roc Vk.

Golden Upright. Alr Bel Buc Bur *CF* DD Fst Frd GH Lnr Mls Rce Roc.

Similar names. Large Golden Upright.

Grossum. Bru Crs Hrv Sim Vk Vin.

Seedsmen's synonyms. *Monstrous*, Bru Crs Hrv Sim Vk Vin.

Guthrey's Giant. SB. For similar names see *Procopp's Giant.*

Hammond's King of Reds, Hammond's Long Red Cayenne. Entered as *King of Reds* and *Long Red Cayenne.*

Henderson's County Fair. Entered as *County Fair.*

Hot Bull Nose. M&S. For similar names see *Bull Nose.*

Improved Bull Nose, Improved Celestial, Improved Golden Queen, Improved Large Bell, Improved Long Red, Improved Sweet Mountain, Improved Thick Long Red. Entered as *Bull Nose, Celestial*, etc.

Italian. *Raw.*

Japanese Cluster. Ewg Gra W&D. For similar names see *Cluster.*

Japanese Red Cluster. Drr Frd. For similar names see *Cluster.*

Seedsmen's synonyms. *Red Cluster*, Frd.

Kaleidoscope. Buc Bur Chl Drw CE Gra Hst Hse Iow Liv JL NK Rce Roc.

Similar names. Childs' Kaleidoscope.

King of Reds. Ham.

Similar names. Hammond's King of Reds.

Large Bell. Alx Alr Anb Bai Brd Brt Bkt Bel Ber Bou Bow *Bgg* Brk Bdg Bgs Brn Bng Buc Bui Bur C&J CE *Cam* Chl C&B Col Cox Crg Crs Cur CA D&H Del DD Drr Drm Dun Eas Ebr Elt RE Evr Ewg Fmr Fst Fax Fer Fle Frd Ger GH GN Ggy Gry Hde Hrm Hrs Hrv Hst Haw Hen Hbt Hlm Hop Hse H&P Iml Iow J&M Jns Kei K&W K&F Kos Kra Lam Lea *Lnr* LB Liv JL Loh Mas Mau May JCM JMM Mic MV Mzy Neb Nef Nol NK OV *Pac* Pks HP JMP Prn Pne Pnt Ptt Poo Por Pot Pri Pug *Rtk* Raw Ree Ren Rce Roc Rs RP Sal S&R SC Shw S&O Shm Sie Sox Spf S&H S&W Tat Thm *Tlh* Thr Thb Til Tpk Trm T&B Vl Vau Vk Vin Wat Wea W&D Wll Wyg Yng Y&H.

Similar names. See *Bell.*

Seedsmen's synonyms. *Bull Nose*, Bui Drr Fer Hen Liv Raw, etc.

Large Bull Nose. Brr CF Drw MWJ. For similar names see *Bull Nose.*

Seedsmen's synonyms. *Bell*, CF.

Large Golden Upright. NK. For similar names see *Golden Upright.*

Large Mexican Chili. J&M. For similar names see *Chili.*

Large Red. Ewg Gra Kei. For similar names see *Long Red.*

Large Red Bell. SB. For similar names see *Bell.*

Seedsmen's synonyms. *Bull Nose*, SB.

Large Red Cayenne. Hrm Iml. For similar names see *Cayenne.*

Large Sweet. Bui G&T. For similar names see *Sweet.*

Seedsmen's synonyms. *Sweet Mountain*, Bui.

Large Sweet Bell. Gls Hrv Mhl Min M&S Tex. For similar names see *Bell.*

Seedsmen's synonyms. *Bull Nose*, Mhl Gls. *Mountain*, Tex.

Large Sweet Mountain. Alx CF Drm Evr Ger Ggy Hrv Liv JL Old Pac Roc AGT Vl.

Similar names. See *Sweet Mountain.*

Large Sweet Spanish. Bak Btl Bou Cam CA Dlw Drr Fst Gdn Gfg MWJ Lan Mel Mhl Pac Stw TB.

Similar names. See *Sweet Spanish.*

Large Squash. Bow *CE* CF Crs RE Fer Hrm K&W *Lnr* LB MV NK *Por* Pri Ree Rs *S&R* Sim *Sox* Thr Til Y&H.

Similar names. See *Squash.*

Seedsmen's synonyms. *Bell,* Sim. *Bull Nose,* Sim. *Tomato,* Bow Bdg CF Crs Ree.

Large Yellow. Kei. For similar names see *Long Yellow.*

Little Red Cayenne. Wd. For similar names see *Cayenne.*

Long Cayenne. Cox RE Gfg Hst RHJ Kos Lan Lnr Sim Vin Web Wyg Y&H.

Similar names. See *Cayenne.*

Long Red. Btl Bkt Bel Bow Bgs Bri Bru D&H RE Ggy Lan Liv Ren Sal Sim.

Similar names. Improved Long Red, Thick Long Red, Improved Thick Long Red, Long Red-Pointed, Large Red.

Seedsmen's synonyms. *Santa Fé,* Ggy.

Long Red Cayenne. Alx Alr Anb Bai Bak Brt Bkt Blg Bow *Bgg* Brk Bdg Bgs Bri Brn Bng Buc Bui Bur Brr C&J Cam CE Cle C&B Col CF Crs Cur D&H DD Drr Ebe Eic Elt Emr Evr Fmr Fqr Fst Fax Fer Frd Gls Gdn GH Gng GN Gry Grw TG Hns Ham Hde Hrn Haw Hen Hly Hlm Hop Hse Jac MWJ J&S *Jns* K&W Ken K&F Kra *Lnr* LB JL Loh Lon Mnd Mgd Man *PM* Mns Mas Mau May JCM JMM *McK* McM Mhl Mls Min MV M&S Mzy Neb Nol NK OV Old Pac Pks HP Prn Pnt Ptt Pot Pri Ree Rce Roc RP SC S&F Shw S&O Sie Sox Spf Stk SB S&W Tat Tex TB Thr Thb *Tlh* Tpk Til Trm T&B Vl Vau Vk Wea W&D Wd Wdr WS Yng.

Similar names. See *Cayenne.*

Seedsmen's synonyms. *Cayenne,* Bur.

Long Red-Pointed. Cox. For similar names see *Long Red.*

Long Yellow. Bgs Bru *CE* RE Gra H&P Iml Rce Sal S&O.

Similar names. Large Yellow.

Long Yellow Cayenne. Buc Crs GH Mzy Roc. For similar names see *Cayenne.*

Mammoth. Brk Bgs Brb Bur *CE* C&B Crs Cur Elt Emr RE Evr Fqr Frd Gls Hen Iow K&W Kra Mzy Nol HP Rce S&O Sox Tem Thb Trm Vl Vk W&D Yng Y&H.

Similar names. Monstrous, Monstrous Mammoth, Sweet Mammoth, Sweet Orange Mammoth, Rose Mammoth.

Seedsmen's synonyms. *Sweet Mountain,* Bur Cur Elt Emr Hen Vk, etc. *Monstrous,* Evr Vl. *Sweet Spanish,* Trm.

Mammoth Bell. Cam Gdn Jac. For similar names see *Bell.*

Seedsmen's synonyms. *Bull Nose,* Gdn Jac Cam.

Mammoth Chili. S&O. For similar names see *Chili.*

Mammoth Golden Dawn. McK Ren. For similar names see *Golden Dawn.*

Mammoth Golden Queen. Alr Bel Bru *CE* Col Frd Hse Iow J&S JL Mls M&S Pir Rce Shm Sim S&H Thr Wd WS.

Similar names. See *Golden Queen.*

Seedsmen's synonyms. *Mango,* Sim.

Mammoth Ruby King. Alr Bel Blg *Cam* Drm J&M Liv JL Mns HP S&B Shm Thm.

Similar names. See *Ruby King.*

Mammoth Ruby King Mango. Entered as *Mammoth Ruby King.*

Mammoth Sweet Mountain. Hse. For similar names see *Sweet Mountain.*

Mammoth Sweet Spanish. Wd WS. For similar names see *Sweet Spanish.*

Mango. Shm Sim.

Seedsmen's synonyms. *Mammoth Golden Queen*, Sim. *Sweet Mountain*, Shm.

Martinique. Eic.

Maule's Ruby King, Maule's Improved Ruby King. Entered as *Ruby King*.

Metcalf's Squash. Fqr. For similar names see *Squash*.

Mexican. DD Lan.

Similar names. Black Mexican, Mexican Chili, Large Mexican Chili.

Seedsmen's synomyms. *Chili*, DD.

Mexican Chili. Ger Thm. For similar names see *Chili, Mexican*.

Mikado. Bur.

Monstrous. Bru Crs Evr Hrv NK *Pnt* Sim Stk SB *Thr* Til Vl Vk Vin.

Similar names. See *Mammoth*.

Seedsmen's synonyms. *Grossum*, Crs Hrv Vk Vin. *Mammoth*, Evr Sim Vl. *Sweet Spanish*, Stk.

Monstrous Mammoth. Anb Btl Hns. For similar names see *Mammoth*.

Monstrous Sweet Spanish. Ar *CE* Eic Rce Sie.

Similar names. See *Sweet Spanish*.

Moore & Simon's Scarlet Maddalon. Entered as *Scarlet Maddalon*.

Orange Wrinkled. Bur. For similar names see *Wrinkled*.

Oxheart. Hnt May Mzy NK Thr.

Pickling. Fqr S&F.

Seedsmen's synonyms. *Squash*, Fqr S&F.

Procopp's Giant. Ar Btl Bel Ber Brk Bri Bru Bng Bui *Bur* Brr *CE* Cle D&H Drr Elt RE Evr Ewg Fqr Fst Frd GH Gra Gng Ggy Gry Hde Hrs Hst J&M *Lnr* Liv Mau May McM Mls MV NK Pir Pnt Raw Ren Rce Sal SC S&F Shm Sim Sox Spf SB Thm Thr Vl Wer Wd WS.

Similar names. Guthrey's Giant, Chinese Giant, Salzer's Giant.

Rawson's Italian. Entered as *Italian*.

Red Cayenne. Del Iow Mhl Por S&R Stw S&H Tem AGT Wll.

Similar names. See *Cayenne*.

Red Cherry. Alx Bai Brd Brt Blg Bow *Bgg* Brk Bdg Bri Bru Bui C&J CE Cle C&B Col Cox Crs DD Drr Ebe Eic Elt Emr Fqr Fer Gdn GH Gry G&T Hen Hly Hop H&P RHJ J&S K&W Lan Lnr LB Liv *Loh* Mnd Mns Mhl MV Mzy Neb NK Pac HP Pnt Ptt Pot Pri Raw Rce SC S&F S&O Sox Stk Stw S&W Tat Tem Thr Vl Vk Wat W&D Wdr.

Similar names. See *Cherry*.

Seedsmen's synonyms. *Red Cluster*, Pac.

Red Chili. Bai Brt Btl Bkt Blg Brk Bdg Bri Brn Bng Buc Bur CE Col Crs Cur D&H Del Eic Emr Fst Fer Fle Gls GH Gng G&T Hns Hrm Hst H&C Hly H&P Iow Jac J&S Lam *Lnr* LB Liv Loh Mnd JCM M&S NK *Pnt* Pri Rce Rs Sal Shw Sie Thr Trm Vin Wer Wyg.

Similar names. See *Chili*.

Red Cluster. Bdg Bgs Bur CE Chl Crs Ebe Eic RE Fst Frd Ger Gls Hde Hst Hen Hbt Hlm Iow Liv Mau May MV M&S NK Pac Pg Ptt Qkr Raw Rce Sal Sox Spf Stk S&W Thr Vau Vk Wll Wd WS Y&H.

Similar names. See *Cluster*.

Seedsmen's synonyms. *Japan Red Cluster*, Frd. *Coral Gem Bouquet*, M&S. *Red Cherry*, Pac.

Red Cranberry. Sal. For similar names see *Cranberry*.

Red Etna. Bur *CE* Ham Mls Rce.

Red Harold. *Thr*.

Red-Pointed Calabrese. *Thr*.

Rose. *Vau*.

Rose Mammoth. Ebe. For similar names see *Mammoth.*

Ruby King. Alx Anb Ar Bai Bak Brd Brt Btl Bkt Blg Bow *Bgg* Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Bur Brr Brw C&J Cam CE Chl Cle C&B Col CF Cok Cox *Crg* Crs Cur CA Dlw D&H Del DD D&C Drr Drw Eas Ebe Ebr Eic Elt RE Evr Fmr Fqr Fst Fer Fld Frd Ger Gls Gdn GH Gra Gng GN Ggy Gry Gfg G&T Grw TG Hns Ham Hde Hrn Hrs Hrv Hst Haw Hen H&C Hly Hlm Hop Hse H&P Iml Iow Jac Jer MWJ RHJ J&S Jns Kg Koe Kos Lam Lan Lea Lnr LB Liv Loh Mnd Mgd Man PM Mas Mau May JCM JMM McK McM Mel Mic Mhl Mls MV M&S Mzy Neb Nef Nol NI NK OV Pac Pg JMP Pir Prn Pnt Ptt Poo Por Pot Pri Qkr Raw Ree Ren Rce Rim Roc Rs RP Sal S&R SC S&F Shw S&O Sie Sox Spf Stk SB Stw S&H S&W Tat Tem Tex TB Thr Thb *Tlh* Til *Tpk* Trm T&B Vl Vau Vk Vin *Wat* Wea Web W&D Wer Wll Wd Wdr WS Wyg Yng Y&H.

Similar names. Burpee's Ruby King, Maule's Ruby King, Maule's Improved Ruby King, Mammoth Ruby King Mango, Mammoth Ruby King, Bolgiano's Mammoth Ruby King.

Salzer's Giant. Sal.

Santa Fé. Ggy.

Seedsmen's synonyms. *Long Red*, Ggy.

Scarlet Maddalon. M&S.

Scarlet Wrinkled. Bur. For similar names see *Wrinkled.*

Small Cayenne. Lan HP Spf Stw. For similar names see *Cayenne.*

Small Chili. Drr Ger Grw Iml *MWJ* Mns May Mhl Ptt Tat Tex Vl Wea Wdr.

Similar names. See *Chili.*

Seedsmen's synonyms. *Bird's-Eye*, Ger.

Small Red Cayenne. MWJ. For similar names see *Cayenne.*

Small Red Chili. Bak Bui *Cam* MWJ Lan Roc Shm Sim Stw Til Vk.

Similar names. See *Chili.*

Spanish Mammoth. Bru Fer Ken Rce. For similar names see *Sweet Spanish.*

Seedsmen's synonyms. *Sweet Mountain*, Fer.

Spanish Monstrous. Bui Bur Fst Gng Ggy Hrn Lnr Mau JMM M&S *Pac* Ree T&B Vau Wlt.

Similar names. See *Sweet Spanish.*

Seedsmen's synonyms. *Bull Nose*, Wlt.

Squash. Bai Brt Bgg Brk Bdg Bru Bui Brb C&J Cle Cox Emr Fqr Fax Ggy Gry Grw Lan Lnr Liv Min Mzy *Pac* Pnt Ptt Pot Qkr S&F Thm T&B Vin.

Similar names. Large Squash, Boston Squash, Dwarf Red Squash, Early Dwarf Red Squash.

Seedsmen's synonyms. *Tomato*, Bui Cle Cox Lan Lnr Liv, etc. *Pickling*, Fqr S&F. *Flat*, Ggy. *Bonnet*, Lan.

Sweet. Hly.

Similar names. Large Sweet.

Sweet Bell. Mhl *Nol.* For similar names see *Bell.*

Sweet Bull Nose. Hly. For similar names see *Bull Nose.*

Sweet Columbus. Eic.

Sweet Golden Dawn. *CE* MV Rce Sox Tat Thr Wlt.

Similar names. See *Golden Dawn.*

Sweet Mammoth. Shw. For similar names see *Mammoth.*

Sweet Mountain. Alr Bai Brd Brt Bkt Ber Blg Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr Brw C&J *CE* Cle C&B Col Cox Crs Cur D&H Del DD Eas Ebe Ebr Elt Emr Fqr Fer Frd Gls GH Gra Gry Grw TG Hde Hrm Hrn Haw Hen H&C Hly Hlm Hop Hnt H&P Iml Iow Jns K&W Ken Kg Kra Lam Lea Lnr LB Loh Lon Mnd Mgd Mns Mau May JCM JMM Min MV Mzy Neb

Nol NI NK OV Pg Pks HP JMP Pnt Ptt Pot Pri Raw Ree Rce Rs Sal SC S&F Shw S&O Shm Sox SB S&W Tem Tex Thm Thr Thb AGT Til *Tpk Vl* Vau Vk Vin Wea W&D Wdr Wyg Yng Y&H.

Similar names. Mammoth Sweet Mountain, Large Sweet Mountain, Improved Sweet Mountain.

Seedsmen's synonyms. *Large Sweet*, Bui. *Bull Nose*, Bru Hrn. *Mammoth*, Bur Cur Elt Hen Iow Vk, etc. *Spanish Mammoth*, Fer. *Bell*, Ptt. *Sweet Spanish*, Bow H&P SB. *Mango*, Shm. *Large Sweet Bell*, Tex.

Sweet Orange Mammoth. Liv S&B. For similar names see *Mammoth, Sweet.*

Sweet Spanish. Bow Bdg Bng Cle C&B Cur CA Drm Eic Elt RE Evr Ewg GH Gra Hns H&P J&M Kei Lan Liv Mnd Mau *M&S* Mzy NK *Pac* Ren Rt Sal *Shw* S&O Sim Stk SB S&W Tat Thm Thr Til Trm T&B W&D Wer.

Similar names. Spanish Monstrous, Spanish Mammoth, Large Sweet Spanish, Giant Sweet Spanish, Mammoth Sweet Spanish, Monstrous Sweet Spanish.

Seedsmen's synonyms. *Sweet Mountain*, Bow H&P SB. *Mammoth*, Trm. *Monstrous*, Stk.

Tabasco. Bur Col Drr Eic Jer Lan Mau Pnt Sal *Shw* Stk Thr Wd.

Thick Long Red. Liv. For similar names see *Long Red.*

Tomato. Bai Bow Bgg Brk Bdg Bui Brb *CE* Cle CF Cox Crs TG Lan Lnr Liv Min Mzy *Pac* Pnt Ptt Qkr Rce Thm T&B Vin.

Seedsmen's synonyms. *Squash*, Bui Cox Liv Ptt T&B Vin. *Bonnet*, Lan. *Large Squash*, Bdg Bow CF Crs Rce. *Boston Squash*, TG.

Tom Thumb. Mau.

Wrinkled. Bgs Bur Liv Ren Vau.

Similar names. Yellow Wrinkled, Scarlet Wrinkled, Orange Wrinkled.

Yellow Cherry. Crs GH Pnt SC Thr. For similar names see *Cherry.*

Yellow Chili. Fer Hly *Lnr* NK Pg. For similar names see *Chili.*

Yellow Wrinkled. Bur. For similar names see *Wrinkled.*

PIE PLANT. (See RHUBARB.)

PUMPKIN.

Atlas. CE Iow.

Banana. *Egg Lnr* Sox.

Big Tom. Bui Bur C&J *Fld* J&S *Tex Vau.*

Seedsmen's synonyms. *Large Common Field*, Bur. *Mammoth Field*, Bui.

Black Negro. Thr. For similar names see *Negro.*

Seedsmen's synonyms. *New Hampshire*, Thr.

Black Sugar. Cle Fmr Liv. For similar names see *Sugar.*

Seedsmen's synonyms. *Negro*, Liv Fmr. *Nantucket Pie*, Fmr Liv. *Small Negro*, Cle.

Bright Red Etampes. Crs *RHJ* Ken. For similar names see *Red Etampes.*

Buckbee's King of the Mammoths, Buckbee's Pure Gold Field. Entered as *King of the Mammoths* and *Pure Gold Field.*

Burpee's Golden Oblong, Burpee's Quaker Pie. Entered as *Golden Oblong* and *Quaker Pie.*

Calhoun. Brd Bkt Bri Buc Bur CF Cur Elt Ewg Frd GH Gra Hrs Hen Iow J&S Ken Koe Kos Kra Lnr May JMM Mls Mzy Old Poo Ree Ren *Rce* Rob Roc Sie S&W Thr Til Vau Vk Wer.

California Field. J&M Thm.

Seedsmen's synonyms. *Kentucky Field*, Thm. *Connecticut Field*, Thm.

Cheese. Btl Bru Ebe Emr RE Ewg Fqr Ger Ggy Hns Lan Mel Min NK *Pac* Prn Stw T&B Wea.

Similar names. See *Large Cheese.*

Citrouille. J&S.

Seedsmen's synonyms. *Mammoth Tours*, J&S.

Common Field. Btl *Cor* Dlw Gls Hns Hbt Hse H&P Koe Lan Lea Mic Mls Min Ree Stw *Tem.*

Similar names. See *Field.*

Seedsmen's synonyms. *Cow*, Tex. *Connecticut Field*, Tex Gls. *Sugar*, H&P.

Common Yellow Field. D&H J&S. For similar names see *Field.*

Connecticut Field. Alr Anb Bai Bak Brd Btl Bkt Bel Blg Bow Bgg Brk Bdg Bri Brn Bng Bui Brb Brw Cam CE Cle C&B Col CF Cox Crs Cur Del DD Ebe Elt Emr Evr Ewg Fmr Fqr Fst Fax Ger Gls GH Gng Gry G&T Grw TG Hrm Hrn Hrs Hrv Haw Hen Hly Iow MWJ Jns *Kei* K&W Ken K&F Kg Kos Lnr *LB* Mgd Man Mns Mas Mau May JMM McM Mhl MV Mzy Neb Nol NK OV Pac HP JMP Pir Prn Pnt Ptt Poo Por Pot Pri Pug Raw Rce Rob Rs RP Sal S&R SC S&F S&O Sie Sox Spf *Stk* SB S&W Tat Tex Thm Thr *Tlh* Til *Tpk* Trm T&B Vk Vin Wea Web W&D Wer Wll Wd Wdr Y&H.

Similar names. Connecticut Large Yellow Field, Connecticut Yellow Field, Connecticut Golden Field.

Seedsmen's synonyms. *California Field*, Bai Thm. *Common Field*, Gls Tex. *Cornfield*, Wd. *Cow*, Tex. *Kentucky Field*, Thm. *Large Common Yellow Field*, Col Nol Mhl. *Large Yellow*, Bow Pg Por Pug S&R Vin. *Yankee Cow*, Ber. *Yellow Field*, Ewg.

Connecticut Golden Field. Brr. For similar names see *Connecticut Field.*

Connecticut Large Yellow Field. Gra Ham PM.

Similar names. See *Connecticut Field.*

Seedsmen's synonyms. *Yankee Cow*, Ham.

Connecticut Yellow Field. C&J. For similar names see *Connecticut Field.*

Cornfield. Wd.

Similar names. Large Cornfield.

Seedsmen's synonyms. *Connecticut*, Wd.

Cream. Alr.

Seedsmen's synonyms. *Cushaw*, Alr.

Crookneck. Ar *Btl* Ber *Blg* Bow Bri Buc Bur Brr DD Fst G&T TG Hns Hlm Hop J&M J&S Kg Lam Mgd PM Mau Pac Ptt Por Pug Raw Ree Rce RP S&R S&O Sox Thm Vl Vk Wd Wdr WS.

Seedsmen's synonyms. *Cushaw*, Buc Bur Bow J&S Lam Mau, etc. *Jonathan*, Brr. *Yellow Cushaw*, Pac.

Cucumber Pumpkin. Brb.

Cushaw. Alx Alr Anb Ar Bak Btl Bkt Ber Bou Bow Bri Bng Buc Bur Cam CE Cle Col CF Cox Crs CA Ebe *Ebr* Eic RE Evr Ewg Fst Frd Ger Gdn GH Gra G&T Grw TG Hns Hde Hrn Hst H&C Hlm Hop Hnt H&P Iml Jac MWJ J&M J&S Jns Ken Kg Lam Lnr Mnd Mgd Man PM Mns Mau May JCM JMM Mhl Min M&S Mzy Neb Nef Nol NI OV *Pac* HP JMP Pir Por Pri Pug Raw Ree Rce Rob Roc RP Sal S&R SC Shw S&O Sox Stk S&W Tat *Tem* Tex Thm Tpk Trm T&B Vl Vk Vin Web W&D Wd WS Wyg.

Similar names. Improved Cushaw, Green-Striped Cushaw, Striped Cushaw, Mammoth Golden Cushaw, Yellow Cushaw, Improved Yellow Cushaw, White Cushaw, Large White Cushaw.

Seedsmen's synonyms. *Cream*, Alr. *Crookneck*, Buc Bur Bow Lam Mau Raw, etc. *Potato*, Shw. *Green-Striped Cushaw*, Hst.

Dunkard. Bgs Frd Lnr *Rce* Sox.

Early Sugar. Elt Nef NK Rt Thr. For similar names see *Sugar.*

Enormous. D&H.

Farmer's Pride. Mls.

Field. Bou Hnt Lan NI Rt.

Similar names. Common Field, Common Yellow Field, Large Common Yellow Field, Large Common Field.

French Prize. May. For similar names see *Mammoth Prize.*

Georgia Field. CA.

Similar names. Large Georgia Field.

Gibson's Mammoth. Ggy Rob Shw.

Globe Mammoth. D&H. For similar names see *Mammoth.*

Golden Marrow. Bgg Bur Evr Fst Hlm J&S Mau Thr *Tlh* Vl.

Seedsmen's synonyms. *Michigan Mammoth,* C&J J&S.

Golden Oblong. Bkt Bri Bur C&J *CE* D&H Del D&C Frd GH Hbt *Hlm* Hop Hse J&S *Lnr* Liv Mau May NK *Pac Pg* Pne Qkr Ren Rce Rob Sal Shm Tem Thr T&B Vl Vau Vk Wll Yng.

Similar names. Burpee's Golden Oblong.

Golden Sugar. M&S. For similar names see *Sugar.*

Golden Yellow King of Mammoths. CCo Cur Hse.

Similar names. See *King of Mammoths.*

Granite State. Raw.

Gray Boulogne. J&S.

Green-Striped Cushaw. Bui Hst J&S *Thm.* For similar names see *Cushaw.*

Seedsmen's synonyms. *Improved Cushaw,* Hst.

Hammond's Hundredweight. Ham. For similar names see *Hundredweight.*

Hammond's Mammoth. Ham. For similar names see *Mammoth.*

Hastings' Jumbo. Entered as *Jumbo.*

Hundredweight. Mau Mls WS.

Similar names. Hammond's Hundredweight.

Improved Cushaw, Improved Mammoth, Improved Yellow Cushaw, Improved Yellow Field. Entered as *Cushaw, Mammoth, Yellow Cushaw,* and *Yellow Field.*

Indiana Field. Vl.

Seedsmen's synonyms. *Kentucky Field,* Evr Vl.

Iron Bark. Ger.

Japanese Pie. Anb Ar Brd Btl Bel *Bgg* Brk Bru Buc Bur *CE* Col CF D&H Del DD Drm Eic RE Evr Ewg Fmr Fst *Frd* GH Gra Grw TG Hns Ham Hst Hbt Hlm Hop Hse H&P Iml Iow J&S *Kg* Lea Lnr Liv Lon Mns Mau May JMM Mls M&S Neb NI NK Pir Pnt *Por* Qkr Ren Rce Rob Roc Sal S&R SC Shw S&O Shm Sim Sox SB *Thm* Thr Trm Vl Vau Vk Vin Wyg.

Jonathan. Bdg Buc Bui Bur Brr Cam *CE* Cle Cur RE Frd Gdn GH Hen Iow J&S Kos Lnr Neb Pac Pri Raw Rce Rob Roc Shw Shm Sie Sim Spf Tem *Thr* Y&H.

Seedsmen's synonyms. *Crookneck,* Brr. *Large White Cushaw,* J&S Tem. *White Cushaw,* Iow.

Jumbo. Anb Bgs Bru Bng Buc C&B Cur CA Ger GH Hst Hen Hlm McK Nef *Nol* Pks Prn Ptt Roc Sim SB S&W W&D.

Similar names. Mammoth Jumbo.

Seedsmen's synonyms. *Big Show,* Frd. *Fifty Dollar Prize,* Frd Iml. *King of Mammoths,* Bru Bur Cur Frd Hrs Iml, etc. *Large Mammoth,* Pg. *Large Yellow Mammoth,* Ham Liv. *Large Yellow Mammoth Potiron,* Drr. *Mammoth,* Frd Iml McK Ren Pg Liv, etc. *Mammoth Fifty Dollars,* Ham Liv. *Mammoth Potiron,* Buc Hlm Hrs Tex. *Mammoth Tours,* Anb Ger Nef. *Potiron,* Bur Liv Ham Ptt Ren Vk, etc. *Tours,* Ren.

Kentucky Field. Anb Ar Bak *Btl* Brk Brb C&J CE DD *Ebr* Eic Fer Frd GH Hns Hrn H&C Hly Iml J&S K&F Koe Kra Lam May JCM JMM Pks Pnt Rce Rs RP SC Sox Stk SB Thm Tpk Trm Vl Web WS.

Similar names. Large Yellow Kentucky Field, Mammoth Kentucky Field.

Seedsmen's synonyms. *California Field,* Thm. *Connecticut Field,* Thm. *Large*

Cheese, Brk Bur Brb Rce Rs RP, etc. *Large Sweet Cheese*, J&S Vk. *Indiana Field*, Evr Vl. *Sweet Cheese*, Fer H&C Lam LB Pks.

King of the Field. May. For similar names see *King of Mammoths.*

King of Mammoths. Alx Btl Bel *Bgg* Bgs Bru Buc C&J *Cam CE* Cle Col CF Cok Crs CA D&H Del Eic RE Gdn GH Gra GN TG Hns Hde Hrn Hse H&P Iow J&S Kei Kg Koe Lea Lon *LB* Mgd Mns McM Mls M&S Nol Ptt Pri Rtk Raw Ree Rce Rob Roc Shw S&O Spf S&H Tat *Tem* Til Trm Vk Vin Wll Wd Wdr WS.

Similar names. Buckbee's King of Mammoths, Golden Yellow King of Mammoths, May's King of the Field, Mammoth King, Mammoth Yellow King, King of the Field.

Seedsmen's synonyms. *Big Show*, Frd. *Fifty Dollar Prize*, Frd Iml. *Jumbo*, Bur Brn Cur Frd Hrs Iml, etc, *Jumbo of California*, Mls. *Large Mammoth*, Pg. *Large Mammoth Yellow Potiron*, Drr. *Large Yellow*, Tex. *Large Yellow Mammoth*, Ham Liv. *Mammoth*, Bur Frd Ham Iml Liv Pg Wdr. *Mammoth Fifty Dollars*, Ham Liv. *Mammoth Summit*, Hop. *Mammoth Potiron*, Col Hrs Tex. *Mammoth Yellow*, Tex. *Potiron*, Bur Frd Iml Rob Ptt Wd, etc.

Large Cheese. Alx Alr Ar Bai Bak Brd Brt *Btl* Bkt Bel Brk Bri Brn Bng Buc Bui Brb Bur Brw C&J Cam CE Chl C&B Col CF Crs Cur Del DD Drr Ebr Eic Elt Evr Fst Fld Frd Gdn GH Gra Gry G&T TG Hde Hrm Hrn Hrs Hst Hbt Hlm H&P Iml Iow Jac MWJ RHJ J&M Jns K&W Kg Kos Kra Lea Lnr Mnd Mgd Man *Mns* Mau May JCM JMM McK McM Mhl MV M&S Mzy Neb Nef Nol OV Pac JMP Pir Pne Pnt Ptt Por Pot Pri Rtk Ren Rce Rob Roe Rs RP Sal S&R SC *Shw* S&O Sie Sox Stk SB S&W Tat Tex Thm Thr Til *Tpk* Trm Vl Vau Vin W&D Wer Wd Wdr WS Wyg Yng Y&H.

Similar names. Mammoth Cheese, Large Mammoth Yellow Cheese, Large Sweet Cheese, Sweet Cheese, Cheese.

Seedsmen's synonyms. *Kentucky Field*, Bur Brk Brb C&J Rce Sox, etc. *Sweet*, Col.

Large Common Field. Bur Col. For similar names see *Field.*

Seedsmen's synonyms. *Big Tom*, Bur.

Large Common Yellow Field. Col Drm Liv JL Mhl M&S Nol.

Similar names. See *Field.*

Seedsmen's synonyms. *Connecticut*, Col Mhl Nol.

Large Cornfield. MWJ. For similar names see *Cornfield.*

Large Field. *Bur* Drw Frd Ggy Iml Jer RHJ Kra McK Pne Ren *S&O* Sim TB Vau *Y&H.*

Seedsmen's synonyms. *Yankee Cow*, Frd.

Large Georgia Field. Alx. For similar names see *Georgia Field.*

Large Mammoth. Hly. For similar names see *Mammoth.*

Seedsmen's synonyms. *Jumbo*, Pg. *King of Mammoths*, Pg. *Mammoth*, Pg.

Large Mammoth Tours. Gls. For similar names see *Mammoth Tours.*

Large Mammoth Yellow Cheese. Sim. For similar names see *Large Cheese.*

Large Pie. Liv.

Large Red Etampes. RHJ. For similar names see *Red Etampes.*

Large Sweet. Liv. For similar names see *Sweet.*

Seedsmen's synonyms. *Pie*, Liv.

Large Sweet Cheese. Blg Bow Grw J&S Liv JL HP Pug S&B Vk.

Similar names. See *Large Cheese.*

Seedsmen's synonyms. *Kentucky Field*, J&S Vk.

Large Tours. Alr Bel Bdg Bru *CE* C&B Drr RE Hen RHJ Kg *Lnr* Mas Mau JCM Mhl *Nol* Pac HP Ptt Rce RP S&O Sox S&W Vau Vk W&D Yng.

Similar names. See *Mammoth Tours.*

Seedsmen's synonyms. *Mammoth*, Gls Mas Mhl Ptt Sox S&W, etc. *Mammoth French*, Vau. *Mammoth Tours*, Hen Mau HP RP.

Large White Cushaw. J&S Tem. For similar names see *Cushaw.*

Seedsmen's synonyms. *Jonathan,* J&S Tem.

Large Yellow. Bai Bow Bru Dun Ebr RE Fer Lam LB Loh NI Old Pg Pks Por Pug S&R *Spf* Tpk Vin.

Similar names. Mammoth Yellow, Mammoth Golden Yellow, Small Yellow.

Seedsmen's synonyms. *Connecticut Field,* Bai Bow Pg Por Pug S&R Vin. *Jumbo,* Tex. *King of the Mammoths,* Tex. *Mammoth Potiron,* Tex.

Large Yellow Field. Bgs Drr Hde Hlm *Pnt* S&H.

Similar names. See *Yellow Field.*

Large Yellow Kentucky Field. Shw. For similar names see *Kentucky Field.*

Large Yellow Mammoth Potiron. Drr *Ger.* For similar names see *Potiron.*

Seedsmen's synonyms. *Jumbo,* Drr. *King of the Mammoths,* Drr.

Large Yellow Tours. MWJ. For similar names see *Mammoth Tours.*

Leaving's World Beater. Entered as *World Beater.*

Livingston. Frd.

Similar names. Livingston's Improved.

Livingston's Improved, Livingston's Cushaw. Entered as *Livingston* and *Cushaw.*

Mammoth. Alr Brt Bow Bdg Bur *CE* Chl C&B Dlw D&C Emr Ewg Fqr Fst Fld Frd Ggy Gry Hen Hbt Hnt Iml *Kei* Kg Lan Lnr Liv JL Man Mas JCM McK Mhl M&S *Nol* Pac Pg HP Pir Pnt Ptt Pri Pug Ren Rce S&F S&O Sox S&W Vk Wea W&D Wdr Yng.

Similar names. Improved Mammoth, Large Mammoth, Hammond's Mammoth, Michigan Mammoth, West India Mammoth, Globe Mammoth, Wernich's Mammoth Giant, Mammoth Giant.

Seedsmen's synonyms. *Jumbo,* Bur Ham Liv Pg Frd Iml, etc. *King of the Mammoths,* Bur Ham Liv Pg Wdr Frd Iml, etc. *Large Mammoth,* Pg. *Large Yellow Mammoth,* Ham Liv. *Mammoth Fifty Dollars,* Liv Ham. *Potiron,* Bur Chl Dlw Fst Ham JL, etc. *Big Show,* Frd. *Fifty Dollar Prize,* Frd Iml. *Large Tours,* Gls Mhl Mas Ptt Rce S&O, etc. *Tours,* Kei Ren.

Mammoth Bright Red Etampes. J&S Liv M&S Nol.

Similar names. See *Red Etampes.*

Mammoth Cheese. Kei. For similar names see *Large Cheese.*

Mammoth Chili. DD.

Mammoth Etampes. Brn Drm Evr TG Iow Mau Vl.

Similar names. See *Red Etampes.*

Seedsmen's synonyms. *Mammoth Tours,* Vl.

Mammoth Field. Bui *Tlh.*

Seedsmen's synonyms. *Big Tom,* Bui.

Mammoth French. Vau.

Seedsmen's synonyms. *Large Tours,* Vau.

Mammoth Giant. Wer. For similar names see *Mammoth.*

Mammoth Golden Cushaw. Bui Drr Hlm J&S M&S *Nol.*

Similar names. See *Cushaw.*

Mammoth Golden Yellow. *Eic* Stk. For similar names see *Large Yellow.*

Mammoth Gray. SB.

Mammoth Jumbo. Shm. For similar names see *Jumbo.*

Mammoth Kentucky Field. WS. For similar names see *Kentucky Field.*

Mammoth King. Brk Bri Bui Hrv Mzy Neb SB Thr *Tlh* Vl.

Similar names. See *King of Mammoths.*

Seedsmen's synonyms. *Jumbo,* SB.

Mammoth Potiron. Bai Bak Bgg Buc CE Col Evr GH Grw TG Hde Hrs Hlm RHJ Lnr LB Mnd MV Roe Sal *Sox* Tex Thm Vl.

Similar names. See *Potiron.*

Seedsmen's synonyms. *Jumbo,* Buc Hrs Hlm Tex. *King of the Mammoths,* Col Hrs Tex. *Large Yellow,* Tex.

Mammoth Prize. Ber Drw Ebe Kg Lam Lnr NK Old Vau.

SIMILAR NAMES. Northrup, King & Co.'s Mammoth Prize, Simmers' Mammoth Prize, French Prize.

Mammoth Red Etampes. Bkt Brk Bui *CE* CF DD Fst GH *Gra* Ggy Liv May OV Rce Rob *Tpk* Vk.

SIMILAR NAMES. See *Red Etampes.*

Mammoth Sugar. TB. For similar names see *Sugar.*

Mammoth Summit. Hop.

SEEDSMEN'S SYNONYMS. *King of the Mammoths,* Hop.

Mammoth Tours. Anb Ar Brd Btl Cam Cle Cox Crs Cur DD Drm Ebr Elt Evr Frd Ger GH Gng TG Hns Iow J&S Kos Lam Lan Lnr Liv Mnd Mau May JMM MV Mzy Nef OV Por Roc Rs RP S&R SC Shm Sie Spf Thr *Tpk* T&B Vl Vin Web Y&H.

SIMILAR NAMES. Large Tours, Large Mammoth Tours, Large Yellow Tours, Mammoth Yellow Tours, Tours.

SEEDSMEN'S SYNONYMS. *Citrouille,* J&S. *Etampes,* Vl. *Jumbo,* Anb Ger Nef. *Large Tours,* Hen Mau RP. *Mammoth Whale,* Iow.

Mammoth Yellow. Brn. For similar names see *Large Yellow.*

SEEDSMEN'S SYNONYMS. *Jumbo of California,* Mls. *King of the Mammoths,* Mls. *Potiron,* Mls.

Mammoth Yellow King. MWJ. For similar names see *King of Mammoths.*

Mammoth Yellow Tours. MWJ. For similar names see *Mammoth Tours.*

Maryland Sweet Potato. G&T. For similar names see *Sweet Potato.*

Maule's Prize Potiron. Entered as *Prize Potiron.*

May's King of the Field. Entered as *King of the Field.*

Michigan Mammoth. Ggy Rob. For similar names see *Mammoth.*

SEEDSMEN'S SYNONYMS. *Golden Marrow,* C&J J&S.

Nantucket. Bgg Brk Brn Bui C&J *CE* Col Cur *D&H* Del DD Elt Emr Fmr Fqr Fst Frd Gdn Gry Hop Hse Jac Jer J&S JCM Nef Raw Rce Rob S&F SB W&D Wyg.

SIMILAR NAMES. Small Nantucket, Nantucket Negro.

SEEDSMEN'S SYNONYMS. *Negro,* Brk Cur Fqr Gry Rce Rob, etc. *St. George,* Frd JCM. *Sugar,* Bui.

Nantucket Negro. May. For similar names see *Nantucket, Negro.*

Negro. Brk Brn C&J *CE* Cur *D&H* Del Emr Fmr Fqr Ggy Gry Hse J&S Raw Rce Rob S&F SB Wer Wyg.

SIMILAR NAMES. Black Negro, Nantucket Negro, Small Negro.

SEEDSMEN'S SYNONYMS. *Black Sugar,* Fmr Liv. *Nantucket,* Brk C&J Cur Emr Fqr Hse, etc. *Nantucket Pie,* Liv. *Nantucket Sugar,* Fmr Gry J&S Raw.

New Jersey Sweet Potato. M&S *Nol.* For similar names see *Sweet Potato.*

Northrup, King & Co.'s Mammoth Prize. NK.

SIMILAR NAMES. See *Mammoth Prize.*

Ohio Pie. Anb.

Old Tom. *Bgg.*

Pie. *Btl Bow* Bdg Fer Fle Gls GN Haw Lam LB Liv Loh *Mns* Pne RP Vk.

SEEDSMEN'S SYNONYMS. *Japanese Crookneck,* Vin. *Large Sweet,* Liv. *Pie Squash,* Gls. *Sugar,* Haw Vk. *Sweet,* RP.

Potato. Blg Shw. For similar names see *Sweet Potato.*

SEEDSMEN'S SYNONYMS. *Cushaw,* Shw.

Potiron. Chl Dlw Fst Ham Hbt Liv JL Mau M&S Ptt Rob Shm Wd WS.

SIMILAR NAMES. Mammoth Potiron, Yellow Mammoth Potiron, Large Yellow Mammoth Potiron, Maule's Prize Potiron.

SEEDSMEN'S SYNONYMS. *Jumbo,* Ptt Ren Vk Bur Liv Frd, etc. *King of the Mammoths,* Mls Rob Ptt Vk WS Wd, etc. *Mammoth,* Ren. *Tours,* Ren. *Big*

Show, Frd. *Fifty Dollar Prize*, Frd Iml. *Jumbo of California*, Mls. *Large Yellow Mammoth*, Ham Liv. *Mammoth*, Bur Chl Dlw Fst Iml Liv JL. *Mammoth Fifty Dollars*, Ham Liv. *Mammoth Yellow*, Mls.

Prize Potion. Mau.

Prolific Field. *Thm.*

Pure Gold Field. Buc Roc.

Similar names. Buckbee's Pure Gold Field.

Quaker Pie. Bkt Brk Bri Buc Bui Bur C&J CE Chl Col CF Cur *D&H Ebr* Evr Fmr Frd Ger *Gls* Gdn GH TG Ham Hbt Hly Hlm Hop H&P Iml J&S Jns *Lnr LB* Mgd Mau May Mls MV Neb NK OV Pac Pg Poo Qkr Ree Ren Rce Rob Roc S&O Sie Sox Tem Thr *Tpk* Vl Vau Vk Wll.

Similar names. Burpee's Quaker Pie.

Queen Luxury. Shm. For similar names see *Winter Luxury.*

Red Etampes. Bru Mnd MV *Sox* Thr.

Similar names. Large Red Etampes, Mammoth Red Etampes, Bright Red Etampes, Mammoth Bright Red Etampes, Mammoth Etampes.

St. George. Frd *Lnr* JCM.

Seedsmen's synonyms. *Nantucket*, Frd JCM.

Sandwich Island. *D&H* Roc.

Simmers' Mammoth Prize. Sim. For similar names see *Mammoth Prize.*

Small Early Sugar. J&S. For similar names see *Sugar.*

Small Golden Sugar. Brr. For similar names see *Sugar.*

Small Nantucket. Lnr. For similar names see *Nantucket.*

Small Negro. Cle. For similar names see *Negro.*

Seedsmen's synonyms. *Black Sugar*, Cle.

Small Sugar. Alr *Btl* Blg Bgg Brk Bur CE Drm Fst Fld Frd GH Grw Ham Hlm Hop Jer Liv *Mgd* Man Mas McK Mls Old Qkr Raw Rob Roc S&B Sox *Stk* Tem TB *Thm Tlh Trm* Web Wdr Wyg.

Similar names. See *Sugar.*

Seedsmen's synonyms. *New England Pie*, Iow. *Sweet*, Sox. *Yankee Pie*, Iow Tem.

Small Sweet. Crs Del. For similar names see *Sweet.*

Seedsmen's synonyms. *Sugar*, Crs.

Small Sweet Sugar. *Cam* Evr Y&H. For similar names see *Sugar.*

Small Yellow. McK. For similar names see *Large Yellow.*

Small Yellow Sugar. Cle TG Hns. For similar names see *Sugar.*

Southern Field. Hst.

Striped Cushaw. *Gdn* MV Pnt *Sox* Spf Thr. For similar names see *Cushaw.*

Seedsmen's synonyms. *Crookneck*, Pnt.

Sugar. Brd Brt Btl Ber *Bow* Bgs Bri Brn Bng Buc Bui Brb C&J *CE* CF Crs Cur Dlw Dun Emr Fqr Fax Gls *Gra* GN Ggy Gry Hrm Hrs Hrv Haw Hen Hse H&P J&M K&W Ken Kra Lea JL *Mns* Mau May MV Mzy Neb *Nol* NI OV HP Pir Pne Ptt Poo Por *Rtk* Rce Sal S&R S&F S&O Shm Sie SB S&H AGT *Tpk* Trm *Vl* Vk Wea W&D.

Similar names. Early Sugar, Small Early Sugar, Golden Sugar, Small Golden Sugar, Small Sugar, Small Sweet Sugar, Yellow Sugar, Small Yellow Sugar, Black Sugar, Mammoth Sugar, Sweet Sugar, Vaughan's Sugar.

Seedsmen's synonyms. *Common Field*, H&P. *Nantucket*, Bui. *Pie*, Haw Vk. *Small Sweet*, Crs. *Sweet*, C&J Fqr Hrm Ken JL Rce, etc. *Yellow Sweet*, Bgs. *Winter Luxury*, Hrs.

Sweet. Ber Bri C&J *CE* Col Emr Fqr Hrm Hse Hnt Ken JL MV Por *Rtk* Rce RP S&R S&F S&O Sie Sox SB AGT Wea.

Similar names. Large Sweet, Small Sweet, Yellow Sweet.

Seedsmen's synonyms. *Large Cheese*, Col. *Pie*, RP. *Small Sugar*, Sox. *Sugar*, C&J Fqr Ken Por Rce S&O, etc.

Sweet Cheese. Fer H&C Lam LB Pks. For similar names see *Large Cheese.*

Seedsmen's synonyms. *Kentucky Field,* Fer Lam H&C LB Pks.

Sweet Field. J&M.

Sweet Potato. Bkt Grw Hrn Hbt Jns Lnr PM Mns Min NI Roc Sal Vau Wll.

Similar names. Maryland Sweet Potato, New Jersey Sweet Potato, Tennessee Sweet Potato, Yellow Sweet Potato, Potato.

Sweet Sugar. Brk Mic Rs Wll. For similar names see *Sugar.*

Tennessee. Cle Tat.

Tennessee Sweet Potato. Alx Alr Anb Ar Bak Brd Btl Bgs Bri Buc Bui Bur Cam CE Col Cok CA Del DD Drr Drm Fmr Fst Frd G&T TG Hst Hly Hlm Hop H&P Iml J&M J&S Kg *Lnr* Liv Mgd Mau May JCM JMM Mhl Mls MV M&S Neb Nol NK Pac JMP Pnt Por Pri Qkr Ree Rce Rob RP S&R Shw S&O *Sox* Spf S&H Tem Thm Thr Trm Vl Vk Wd Wdr WS Wyg.

Similar names. See *Sweet Potato.*

Thanksgiving. Brd Col Fmr JL *M&S* S&H.

Tours. *Kei* Ren. For similar names see *Mammoth Tours.*

Seedsmen's synonyms. *Jumbo,* Ren. *Mammoth,* Kei Ren. *Potiron,* Ren.

Vaughan's Sugar. Vau. For similar names see *Sugar.*

Virginia Mammoth. Wd.

Wernich's Mammoth Giant. Entered as *Mammoth Giant.*

Western Field. Buc J&S Roc.

West India Mammoth. Bdg. For similar names see *Mammoth.*

White Cushaw. Brk *TG* Iow Rce S&O Spf Thr. For similar names see *Cushaw.*

Seedmen's synonyms. *Jonathan,* Iow.

Winter Luxury. Brd Bkt Brk Buc Bur Brr C&J Col D&H Drr Drw Elt Evr *Fqr* Fle GH Ham Hrs Hen Hlm Hop J&S Mgd Mls M&S *Nol* Poo Por Rce Rob Roc Sal S&R Shw Shm Sie Sim Thr *Tlh* Vl Vau Vk.

Similar names. Queen Luxury.

Seedsmen's synonyms. *Sugar,* Hrs. *Winter Queen,* Frd Vau.

Winter Queen. Kg Lnr Vau.

Seedsmen's synonyms. *Winter Luxury,* Frd Vau.

World Beater Pie. Lea.

Similar Names. Leavings' World Beater Pie.

Yankee Field. Fld *M&S.*

Yankee Pie. Iow Mls Rtk Tem.

Seedsmen's synonyms. *New England Pie,* Iow. *Small Sugar,* Iow Tem.

Yellow Cushaw. Bui *Gdn* Gfg *G&T* Koe Lan Pac Rim Stw.

Similar names. See *Cushaw.*

Seedsmen's synonyms. *Crookneck,* Pac. *Large Yellow Crookneck,* Lan.

Yellow Field. Ewg Ham Hop.

Similar names. Improved Yellow Field, Large Yellow Field.

Seedsmen's synonyms. *Connecticut Field,* Ewg.

Yellow Mammoth Potiron. *CE* Rce Sox. For similar names see *Potiron.*

Yellow Monster. Lan Stw.

Yellow Sugar. Pot. For similar names see *Sugar.*

Yellow Sweet. Bgs. For similar names see *Sweet.*

Seedsmen's synonyms. *Sugar,* Bgs.

Yellow Sweet Potato. Mau. For similar names see *Sweet Potato.*

Yum Yum Pie. Ber.

RADISH.

Alaska. Sal.

Alexander's All Seasons. Entered as *All Seasons.*

All Seasons. Alx *Ggy* Iow Lan *Mns Spf* Vk.

Similar names. Alexander's All Seasons, Vick's All Seasons, All Year Round.

Seedsmen's synonyms. *Celestial,* Iow.

All Solid. Cur.

All Year Round. Sal. For similar names see *All Seasons.*

Alneer's Fourteen Day, Alneer's Improved Chartier. Entered as *Fourteen Day* and *Chartier.*

Arlington First Early. *Lan.*

Arlington Long Scarlet. Brr Fqr Raw S&R Wea.

Similar names. See *Long Scarlet.*

Arrington's First and Best. Entered as *First and Best.*

Barteldes' Glass. Entered as *Glass.*

Beckert's Chartier, Beckert's Improved Chartier, Beckert's Nonpareil. Entered as *Chartier* and *Nonpareil.*

Bertram Forcing. Vau.

Birmingham. Bui Gdn.

Black Spanish. *Cam* Ebr *Eic* RE Ewg Ggy TG Hrs RHJ *Kei* K&W Mgd Mau McK McM Mic Mzy NI *Pac* Pir Prn Ptt Pot Pug Ren Sal Shm *Spf* Stk Tem *Tlk* Trm T&B Wat Wll Wdr.

Similar names. See *Long Black Spanish.*

Black Spanish Oblong-Shaped. Brw. For similar names see *Long Black Spanish.*

Black Spanish Oval-Shaped. JMM. For similar names see *Long Black Spanish.*

Black Summer Turnip. Vau.

Bolgiano's Early Long Scarlet, Bolgiano's Large White, Bolgiano's Snow White Turnip. Entered as *Early Long Scarlet, Large White,* and *Snow White Turnip.*

Bolgiano's No. 1 Scarlet Globe. Blg. For similar names see *Early Scarlet Globe.*

Bolgiano's No. 2 Scarlet Globe. Blg. For similar names see *Early Scarlet Globe.*

Boston Long Scarlet. Ggy. For similar names see *Long Scarlet.*

Breakfast. GN Vau. For similar names see *French Breakfast.*

Briggs' Scarlet Globe. Entered as *Scarlet Globe.*

Bright Breakfast. Bur Ham Jer Mgd McM.

Similar names. See *French Breakfast.*

Seedsmen's synonyms. *French Breakfast,* Ham.

Bright Red Turnip Forcing. M&S. For similar names see *Red Turnip.*

Bruce's In and Out, Bruce's Non Plus Ultra. Entered as *In and Out* and *Non Plus Ultra.*

Buckbee's Crystal Forcing, Buckbee's Improved Chartier, Buckbee's Rapid Forcing, Buckbee's Rockford Market. Entered as *Crystal Forcing, Chartier, Rapid Forcing,* and *Rockford Market.*

Buckskin Yellow Gray. Bgs.

Buist's Early Long Scarlet, Buist's Early Long White, Buist's Earliest Scarlet Turnip, Buist's Early Short White Forcing, Buist's Yellow Summer Turnip. Entered as *Early Long Scarlet, Early Long White, Early Scarlet Turnip, Early Short White Forcing,* and *Yellow Summer Turnip.*

Burlington Early White Forcing. Lan. For similar names see *Earliest White.*

Burpee's Earliest. Bur Pg. For similar names see *Earliest Forcing.*

Seedsmen's synonyms. *Improved Scarlet Button,* Bur. *Scarlet Button,* Rce Sie.

Burpee's Earliest Scarlet Button, Burpee's Osaka, Burpee's Ruby Pearl, Burpee's Golden Dresden, Burpee's Surprise. Entered as *Early Scarlet Button, Osaka, Ruby Pearl, Golden Dresden,* and *Surprise.*

California Cherry. M&S.

Similar names. Moore & Simon's California Cherry.

California Long White Spanish. Sim.

Similar names. See *California Mammoth White Winter, White Spanish, Long White.*

California Mammoth Long Black Spanish. Sim.

Similar names. See *Long Black Spanish.*

California Mammoth White China. Ebe Emr Fer Lam Lnr LB *Loh* Pks Tpk.

SIMILAR NAMES. See *California Mammoth White Winter*, *Chinese Rose Winter*.

California Mammoth White Winter. Alr Anb Ar Bai Btl Bel Blg Bow Bgs Brk Brn Bru Buc Bur *CE* C&B Col Crs Cur Del DD Ebr Elt RE Evr Fmr Fst Frd Ger Gls Gdn GH Gra Grw TG Hns Hrn Hrs Hrv Hst Hen Hbt H&C Hlm H&P Iow J&M J&S *Kei* Ken Lnr LB *Mns* Mau May JCM McK Mic Mls MV Mzy Neb NK *Pac* Prn Pnt Ptt Por Pug Qkr Raw Ree Ren Ree Roc RP Sal S&R SC Shw S&O Sie *Sox* Stk SB S&H Tat Tem *Tlh* Thm Thr Til Trm T&B Vl Vau Vk Web W&D Wer.

SIMILAR NAMES. Mammoth White Winter, California Mammoth White China, California White Winter, California Long White Spanish, Moore & Simon's California Cherry.

SEEDSMEN'S SYNONYMS. *Russian Mammoth White*, HP.

California White Winter. Cle Drr Ggy Hop Lan Man Mhl Nef.

SIMILAR NAMES. See *California Mammoth White Winter*.

SEEDSMEN'S SYNONYMS. *Large White Russian*, Ggy.

Cardinal. Brd Bui D&H Frd McM Mhl Shm Sie Vau.

SIMILAR NAMES. See *Long Cardinal*.

SEEDSMEN'S SYNONYMS. *Long Brightest Scarlet*, Brd Bui Eic Frd Sie Vau.

Cardinal Globe. Drr *Hlm* J&S Lan M&S Nol Wd WS.

SIMILAR NAMES. See *Long Cardinal*.

SEEDSMEN'S SYNONYMS. *Extra Early Scarlet Globe*, Wd. *Scarlet Globe*, J&S Mhl Nol.

Carmine Forcing. *H&C* M&S. For similar names see *Earliest Carmine*.

Carmine Olive-Shaped. TG Ham. For similar names see *Scarlet Olive-Shaped*.

SEEDSMEN'S SYNONYMS. *Improved Scarlet Globe*, Ham. *Red Rocket*, Ham. *Scarlet Olive*, Ham. *Short Leaf*, Ham. *Startle*, Ham.

Carter's Long Scarlet. Entered as *Long Scarlet*.

Celestial. Bkt Blg Bgs Bri *Buc* Bui *Bur* CE Cle *Cox* D&H DD RE Fer Frd Gdn Hen *Hlm* Iow J&S Lan *Lnr* Mgd Mns Mrs Pac HP Ree *Rim* Sie Stw Thr Vau *Wat* Wd W&D.

SIMILAR NAMES. Chinese Celestial.

SEEDSMEN'S SYNONYMS. *All Seasons*, Iow. *Chinese*, Mgd. *Chinese Half Long Stump*, Lan Stw. *Chinese Mammoth*, Frd Lnr Vau. *Chinese Stump*, Cle. *Mammoth White Chinese*, Alr. *White Chinese*, Blg Bui Bur Hen Liv Mns, etc.

Champion. Fst Hrn Pri.

SIMILAR NAMES. Faust's Champion.

Chartier. Agn Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt *Bel* Ber Blg Bow Bgg Bgs Bri Brn Bru Buc Bui Bur Brr C&J Cam CE Chl Cle C&B Col CF Cok Cox *Crg* Crs Cur CA Dlw Del DD D&C Drr Drw Drm Eas Ebr Eic Elt RE Ewg Fmr Fqr Fst Fer Fld Fle Frd Ger Gls Gdn GH Gra Gng GN Ggy Gry G&T TG Hns Ham Hde Hrn Hrs Hrv Hst Hen Hbt H&C Hly Hlm Hop Hse H&P Iml Iow Jac Jer MWJ J&M J&S Jns *Kei* Ken Kg Koe Kos Lam Lan Lea Lnr LB Liv Loh Lon Mgd Man PM Mns Mau May JCM JMM McK McM Mel Mic Mhl Mls Mrs Mzy Neb Nef *Nol* NI NK OV Old *Pac* Pks HP JMP Pir Prn Pnt Ptt Poo Por Pot Pri Pug Qkr Rtk Raw Ree Ree Roc Rt Rs RP Sal SC S&F Shw S&O Shm Sie Sim Sox Spf SB Stw S&H Tem Tex Thm AGT *Tlh* Til Trm T&B Vl Vau Vk Vin Wat Web W&D Wll Wyg Yng Y&H.

SIMILAR NAMES. Beckert's Chartier, Beckert's Improved Chartier, Improved Chartier, Alneer's Improved Chartier, Buckbee's Improved Chartier, Cox's Improved Chartier, Long Chartier, Long Scarlet Chartier, Long Scarlet Chartier White-Tipped, White-Tipped Chartier, White-Tipped Scarlet Chartier, White Chartier, Long White Chartier.

SEEDSMEN'S SYNONYMS. *Shepherd*, Bgs Hen Vk Bur JL Ree, etc. *Early Mammoth*, Chl. *Long Rose*, Lan Bak. *Long Rose White-Tipped*, Hde Neb Pnt SC.

Chinese Celestial. Tem *Wat.*

Similar names. See *Celestial, Chinese Rose Winter.*

Seedsmen's synonyms. *Round Scarlet Chinese,* Iow Tex.

Chinese Globe Winter. Iow Tex. For similar names see *Chinese Rose Winter.*

Chinese Half Long Stump-Rooted. Lan.

Similar names. See *Chinese Rose Winter.*

Seedsmen's synonyms. *Celestial,* Lan Stw.

Chinese Mammoth White. Alr *Btl* Cox Frd GH Lnr Shm Shw Vau Vin.

Similar names. See *Chinese Rose Winter.*

Seedsmen's synonyms. *Celestial,* Alr Frd Lnr Vau.

Chinese Rose Summer. Blg. For similar names see *Chinese Rose Winter.*

Chinese Rose Winter. Alx Alr Anb Ar Bai Brd Btl Bkt Bel Ber Blg Bou Brk Bgs Bri Brn Bru Buc Bui Bur Brr Cam CE Chl Cle C&B Col CF Cox Crg Crs Cur CA D&H DD Drw Drm *Eas* Ebr *Eic* Elt RE Evr Ewg Fmr Fqr Fst Frd Ger Gls Gdn GH Gra Gng Ggy Gry G&T Grw TG Hns Ham Hde Hrn Hrs Hrv Hst Hen H&C Hly Hlm Hop Hnt H&P Iow Jac MWJ RHJ J&S Jns Kei K&F Kg Kos Lam Lan Lea Lnr *LB* Liv Man *PM* Mns Mau May JCM McM Mic Mls MV M&S Mrs Mzy Neb Nef *Nol* NK OV Old Pac JMP Pir Prn Pnt Ptt Poo Por Pri Pug Qkr Raw Ree Ren Rce Roc Rt Rs RP Sal S&R SC S&F Shw Shm Sie Sox Stk S&H S&W Tat Tem TB Thm AGT *Tlh Tpk* Trm Vl Vau Vk Vin *Wat* Web W&D Wll *Wlt* Wd Wdr WS Wyg Y&H.

Similar names. Chinese Rose Summer, Perfection Chinese Rose Winter, Chinese Globe Winter, Round Chinese Rose Winter, Long Chinese Rose Winter, Chinese Scarlet Winter, Round Chinese Scarlet Winter, White Chinese, Chinese Mammoth White, California Mammoth White Chinese, Chinese Celestial, Chinese Half Long Stump-Rooted, Chinese Stump-Rooted.

Seedsmen's synonyms. *Scarlet China,* Bui Brn Liv Frd Fmr Vau, etc. *Scarlet Winter,* Bur.

Chinese Scarlet Winter. Bow Bdg Brn Bur C&J Drr Elt Emr Fmr Fer Frd Iml MWJ Ken Lan *Lnr* LB Liv Loh JMM McK Mhl Min Pg HP Rim Stw Tex Thr Til Tpk Vau Wat Wea.

Similar names. See *Chinese Rose Winter.*

Seedsmen's synonyms. *Chinese Rose Winter,* Bui Liv Elt JL Ren Vau, etc.

Chinese Stump-Rooted. Cle GH. For similar names see *Chinese Rose Winter.*

Seedsmen's Synonyms. *Celestial,* Cle.

Cincinnati Long Scarlet. *Mhl.* For similar names see *Long Scarlet.*

Cincinnati Market. *Alr* Btl Bkt Blg Bri Brn Bui Bur Brr *CE* Col CA Drr Evr *Fmr* Frd G&T Ham H&C Hlm H&P Iml Iow J&S Jns *Lan Lnr* Liv Lon *Mns Man* May JCM JMM Mrs NK Old HP Ree Rce Shw *Sie* S&H Tex *Tlh* Til *Vl* Vau Wll.

Similar names. McCullough's Cincinnati Market, Cincinnati Long Scarlet.

Seedsmen's synonyms. *Glass,* Bur NK Wll.

Clipper. D&H.

Colorado Glass. Vau. For similar names see *Glass.*

Comet. J&S.

Covent Garden. Ggy.

Similar names. Covent Garden Long Scarlet.

Seedsmen's synonyms. *Long Scarlet Short Top,* Ggy.

Covent Garden Long Scarlet. *Kei.*

Similar names. See *Covent Garden, Long Scarlet.*

Cox's Improved Chartier, Cox's Rose Queen, Cox's Triumph. Entered as *Chartier, Rose Queen,* and *Triumph.*

Crimson Ball. *Drr.*

Crimson Bunch. Ren.

Seedsmen's synonyms. *Ne Plus Ultra*, Ren.

Crimson Red. Shm.

Crystal Forcing. Buc Drr Roc.

Similar names. Dreer's Crystal Forcing, Buckbee's Crystal Forcing.

Seedsmen's synonyms. *Model White Box*, Alr.

Cut-Leaved Rose Globe. *Lan.*

Dainty Forcing. Hlm *Vl.*

Similar names. Holmes' Dainty Forcing.

Dallwig's Earliest Forcing. Dlw. For similar names see *Earliest Forcing.*

Dallwig's Golden Yellow Oval-Shaped, Dallwig's Twenty Day. Entered as *Golden Yellow Oval-Shaped* and *Twenty Day.*

Danish Attraction. Ren.

Dark Red Ball. Bur Hrs. For similar names see *Fire Ball.*

Seedsmen's synonyms. *Earliest Scarlet Forcing*, Hrs. *Early Deep Scarlet Turnip Forcing*, Col. *Non Plus Ultra*, Col Frd. *Round Dark Red*, Frd.

Deep Blood Red Turnip. Brk DD Ggy. For similar names see *Red Turnip.*

Deep Scarlet Olive-Shaped. Brk RE Frd Lan Mnd Mzy Nol Old Pri Thr Vau.

Similar names. See *Scarlet Olive-Shaped.*

Seedsmen's synonyms. *Twenty Day*, Old. *Early Oval Dark Red*, Frd.

Deep Scarlet Turnip. Btl Bgs Ebr Lnr LB May Mgd Ptt Tat.

Similar names. See *Scarlet Turnip.*

Seedsmen's synonyms. *Earliest Erfurt Dark Red*, Pnt. *Scarlet Button*, Mgd.

Deep Scarlet Turnip Forcing. Tat. For similar names see *Scarlet Turnip.*

Seedsmen's Synonyms. *Non Plus Ultra*, Drm Liv.

Deep Scarlet Turnip White-Tipped. Mgd McK *Rce.*

Similar names. See *Scarlet Turnip White-Tipped.*

Deep Scarlet Turnip White-Tipped Forcing. Shw.

Similar names. See *Scarlet Turnip White-Tipped.*

Seedsmen's synonyms. *Rosy Gem*, Mgd.

Delicacy. Bgs Ebr *LB* May SC Thr.

Similar names. Early White Delicacy, Moore & Simon's Early White Delicacy, White Delicacy.

Seedsmen's synonyms. *Half Long White Summer*, SC.

Denver Glass. Hns. For similar names see *Glass.*

Dickmann's Model White Box. Entered as *Model White Box.*

Dom Pedro. JMP.

Similar names. Philips' Dom Pedro.

Double Quick White Forcing. J&S. For similar names see *Earliest White.*

Dreer's Crystal Forcing, Dreer's Crimson Ball, Dreer's Earliest White Globe Forcing. Entered as *Crystal Forcing, Crimson Ball*, and *Earliest White Globe Forcing.*

Earliest Carmine. Bur Brr Del Frd Hst Lnr.

Similar names. Earliest Carmine Forcing, Shumway's Extra Early Carmine Globe, Moore's Carmine Forcing, Earliest Carmine Turnip, Vaughan's Earliest Carmine Turnip, Carmine Forcing, Extra Early Carmine Globe.

Seedsmen's synonyms. *Red Rocket*, Bur Frd. *Scarlet Globe*, Bur. *Startle*, Frd. *Twenty Day Forcing*, Frd.

Earliest Carmine Erfurt. Alr GH Vau. For similar names see *Earliest Erfurt.*

Seedsmen's synonyms. *Fireball*, Alr. *Rapid Forcing*, Alr.

Earliest Carmine Forcing. Cur *Nol* W&D. For similar names see *Earliest Carmine.*

Earliest Carmine Olive. Brd Bui Liv.

Seedsmen's synonyms. *Red Rocket*, Bui.

Earliest Carmine Turnip. Dlw Ebr GH Hrn Spf Vau.

Similar names. See *Earliest Carmine.*

Earliest Erfurt. Fmr Hde K&F Wer.

Similar names. Extra Early Erfurt, Earliest Scarlet Erfurt, Earliest Erfurt Scarlet Turnip White-Tipped, Earliest Erfurt Scarlet Turnip, Early Carmine Erfurt, Earliest Carmine Erfurt, Erfurt Dark Red, Early Round Dark Red Erfurt, Earliest Erfurt Blood Red.

Seedsmen's synonyms. *Early Bird*, Ham. *Early Round Dark Red*, Ham. *Fire Ball*, Ham. *Non Plus Ultra*, Ham. *Twenty Day*, Ham.

Earliest Erfurt Blood Red. Bai Pnt. For similar names see *Earliest Erfurt.*

Earliest Erfurt Scarlet Turnip. Bgs Drr Elt RE Ggy Gfg Lan Mau Raw.

Similar names. See *Earliest Erfurt.*

Earliest Erfurt Scarlet Turnip White-Tipped. Gfg.

Earliest Forcing. Chl.

Similar names. Burpee's Earliest, Dallwig's Earliest Forcing, Landreth's Earliest, Maule's Earliest Scarlet, Mills' Earliest.

Earliest of All Scarlet. Mhl.

Similar names. Sutton's Earliest of All Scarlet.

Earliest Scarlet. Mau. For similar names see *Earliest Forcing.*

Earliest White. Bur Col *Frd* Ggy Jer Jns Lan Mau McK Sal *Stk* Vau *Wat.*

Similar names. Earliest White Forcing, Maule's Earliest White, Salzer's Earliest White, Buist's Early Short White Forcing, Burlington Early White Forcing, Double Quick White Forcing, Early Short White Forcing, Earliest White Olive.

Earliest White Forcing. Ren. For similar names see *Earliest White.*

Earliest White Globe Forcing. Drr J&M *McK.* For similar names see *White Globe.*

Earliest White Olive. Mgd. For similar names see *Earliest White.*

Seedsmen's synonyms. *White Rocket*, Mgd.

Early Bird. GN. Lon Sal.

Similar names. Salzer's Early Bird.

Seedsmen's synonyms. *Earliest Erfurt*, Ham. *Early Round Dark Red*, Ham. *Fire Ball*, Ham. *Non Plus Ultra*, Ham. *Twenty Day*, Ham.

Early Bright Scarlet Olive-Shaped. Dlw.

Similar names. See *Scarlet Olive-Shaped.*

Early Carmine Olive-Shaped. Brd Bui CE Eic GH Grw Liv.

Similar names. See *Scarlet Olive-Shaped.*

Early Carmine Olive-Shaped Forcing. Y&H.

Similar names. See *Scarlet Olive-Shaped.*

Early Deep Blood Red Turnip. MV *Sox* Thr. For similar names see *Red Turnip.*

Early Deep Red Turnip. Bri TB. For similar names see *Red Turnip.*

Early Deep Red Turnip Forcing. TB. For similar names see *Red Turnip.*

Early Deep Scarlet Olive-Shaped. *Bac* Bui Ebe Fqr GH Hde Lam Mau Pac Rce RP Y&H.

Similar names. See *Scarlet Olive-Shaped.*

Early Deep Scarlet Olive-Shaped Short-Leaved. Crs Fqr Fer Fle.

Similar names. See *Scarlet Olive-Shaped.*

Early Deep Scarlet Olive-Shaped White-Tipped. *RE* SB.

Similar names. See *Scarlet Olive-Shaped.*

Early Deep Scarlet Tennis Ball. *Lan.*

Early Deep Scarlet Turnip. Bak Brt Brk C&J Col D&H Ebe Elt Gdn GH TG Hrn Jac Lan Min MV Neb NK Pac Pg Pri Rce Roc S&O Sie *Thr* Vau Web Wdr Y&H.

Similar names. See *Scarlet Turnip.*

Seedsmen's synonyms. *Early Round Dark Red Erfurt*, Btl. *Non Plus Ultra*, Cur Fer Lam Pg. *Round Dark Red*, Col.

Early Deep Scarlet Turnip Forcing. Brw CF Cur Fqr Fer Fle Gry Haw Jns Mel Rim Thr Wer.

Similar names. See *Scarlet Turnip.*

Seedsmen's synonyms. *Dark Red,* Col DD Fle Jns Loh. *Dark Red Ball,* Col.

Early Deep Scarlet Turnip White-Tipped. SB.

Similar names. See *Scarlet Turnip White-Tipped.*

Early Fire Ball. Liv Wat. For similar names see *Fire Ball.*

Early Frame. Ewg *Mhl* Tat. For similar names see *Wood's Early Frame.*

Early Frame Forcing. Shm. For similar names see *Wood's Early Frame.*

Early French Breakfast. Agn Bgg Bui Col Cox Ebr Evr Fqr Gng TG McK Mhl M&S NK Qkr SC S&F Sox Tex Web.

Similar names. See *French Breakfast.*

Seedsmen's synonyms. *Early White-Tipped Scarlet Olive-Shaped,* SC.

Early French Deep Scarlet Turnip. Thr. For similar names see *Scarlet Turnip.*

Early French Scarlet Forcing Turnip. Brk Fqr Thr.

Seedsmen's synonyms. Non Plus Ultra. Fqr.

Similar names. See *Scarlet Turnip.*

Early French Scarlet Turnip. Thr. For similar names see *Scarlet Turnip.*

Early French Scarlet White-Tipped Forcing Turnip. Mnd Thr.

Similar names. See *Scarlet Turnip White-Tipped.*

Early French Scarlet White-Tipped Turnip. Thr.

Similar names. See *Scarlet Turnip White-Tipped.*

Early Garnet. MWJ Ken Lan.

Early Giant White Stuttgart. C&J Fer Lam LB HP WS.

Similar names. See *White Stuttgart.*

Early Golden Dresden. Lan. For similar names see *Golden Dresden.*

Early Golden Yellow Oval-Shaped. Fer *Gls* Mgd HP Shw.

Similar names. See *Golden Olive-Shaped.*

Early Half Long Deep Scarlet. Bow *RE* Neb Pnt SC SB.

Similar names. See *Half Long Scarlet.*

Early Half Long Scarlet. Bui Lea. For similar names see *Half Long Scarlet.*

Early Island Bright Scarlet. TB.

Early Long Brightest Scarlet. Buc *Por* Roc *S&R.*

Similar names. See *Long Scarlet.*

Early Long Brightest Scarlet White-Tipped. Bow.

Similar names. See *Long Scarlet.*

Early Long Scarlet. Blg Bow Bgg Bui C&J Cox Del Ebe Ebr *Eic* Gfg Hst *Hlm* Hnt Jac J&M J&S Lnr Mel Min JMP Ren *Rim* S&R Shw Tat Tem Thm Tpk Trm Vau Vin.

Similar names. See *Long Scarlet.*

Seedsmen's synonyms. *Salmon,* J&S. *Wood's Early Frame,* Bow.

Early Long Scarlet Short Top. Agn Alx Btl *Ber Bgg* Bgs Bui Bur Cam Col CF CA DD D&C Eic Elt Evr Fqr Fst Fer Ger Gdn GH Grw TG Hde H&C Hlm Iml Iow *Kg* Lam Lnr LB Liv Loh Mgd JCM Min Nef Old Pac Pg Pks Pir Pnt Ptt Por Pug *Rtk* Raw Ree Rs RP. S&R Sim Sox Stk SB S&H TB Til Tpk Vl Vau Web Wdr Wyg.

Similar names. See *Long Scarlet.*

Early Long White. Bui. For similar names see *Long White.*

Early Long White Lady Finger. Bak Pnt. For similar names see *Lady Finger.*

Early Long White Vienna. Lan Neb Rim Stw.

Similar names. See *White Vienna, Long White.*

Seedsmen's synonyms. *Lady Finger,* Neb.

Early Mammoth. Chl.

Seedsmen's synonyms. *Shepherd,* Chl. *Chartier,* Chl.

Early May. *Fmr.*

Early Nine-Pin Shape. Sim.

Early Non Plus Ultra. MV Sim Thr. For similar names see *Non Plus Ultra.*

Early Olive-Shaped. Bow Bur Fqr Hns.

Similar names. See *Scarlet Olive-Shaped, White Olive-Shaped.*

Seedsmen's synonyms. *Half Long Scarlet,* Bow.

Early Oval Dark Red. Bur. For similar names see *Round Dark Red.*

Seedsmen's synonyms. *Oval-Shaped Deep Scarlet,* Frd.

Early Purple Olive-Shaped White-Tipped. Dlw.

Similar names. See *Early Purple Turnip.*

Early Purple Turnip. Dlw Raw.

Similar names. Purple Summer Turnip, Early Purple Olive-Shaped White-Tipped.

Early Red Turnip. Bou Crg MWJ Mns Min Wd WS.

Similar names. See *Red Turnip.*

Seedsmen's synonyms. *Early Scarlet Turnip,* Wd WS.

Early Rose Gem. Mls Sox. For similar names see *Rosy Gem.*

Early Rose Turnip. Col. For similar names see *Rose Turnip.*

Early Round Bright Red. Brw. For similar names see *Round Dark Red.*

Early Round Dark Red. Brd Bdg Brn Bur *CE* C&B Cur D&C Drm Fst GH Ham Hen Hlm J&S Mns Mau Mls Mrs Pir Prn Poo Ree Rce Tem Vk W&D.

Similar names. See *Round Dark Red.*

Seedsmen's synonyms. *Earliest Erfurt,* Ham. *Early Bird,* Ham. *Fire Ball,* Ham. *Non Plus Ultra,* Ham, Vk. *Twenty Day,* Ham. *Scarlet Button,* J&S.

Early Round Dark Red Erfurt. Btl Hns SC.

Similar names. See *Earliest Erfurt.*

Seedsmen's synonyms. *Early Deep Scarlet Turnip,* Btl.

Early Round Deep Scarlet. *Bow Cox* Crs Fer Gls Loh Til Tpk.

Similar names. See *Scarlet Turnip.*

Early Round Deep Scarlet Forcing. Bow.

Similar names. See *Scarlet Turnip.*

Seedsmen's synonyms. *Non Plus Ultra,* Bow.

Early Round White-Tipped. Til. For similar names see *White-Tipped.*

Early Scarlet Ball. Brr *McK.* For similar names see *Fire Ball.*

Early Scarlet Button. Bur Hlm Ree Trm Vl. For similar names see *Scarlet Button.*

Early Scarlet Gem White-Tipped Forcing. *Thr.*

Early Scarlet Globe. Alr *Bak* Brd Btl Bkt Brk Bgs Bri Bui C&B Col CF Crs Cur CA DD Drm Eas Ebe RE Fqr Fer Frd Gls GH Ggy G&T Grw TG Hns *Hrn* Hen Hly Hop Iml Iow J&M Jns Kos Lnr Liv JL Loh JMM *Mic* Mrs Neb *Nol* NI NK OV Old Pg JMP Pne Pnt Ptt Pot Pri Raw Rt Sal SC S&F Sim S&H S&W Tem Thm *Thr Tlh* Vau Vk Wea Web W&D Wer.

Similar names. Extra Early Scarlet Globe, Early Scarlet Globe Short Top, Early Scarlet Globe White-Tipped, Extra Early Scarlet Globe White-Tipped, Improved Early Scarlet Globe, Scarlet Globe White-Tipped, Scarlet Globe Forcing, Scarlet Globe, Bolgiano's No. 1 Scarlet Globe, Bolgiano's No. 2 Scarlet Globe, Briggs' Scarlet Globe, Prussian Scarlet Globe, Vick's Scarlet Globe, Vick's Scarlet Globe Forcing, Vick's Early Scarlet Globe, Vaughan's Early Scarlet Globe, Salzer's Earliest Scarlet Globe.

Seedsmen's synonyms. *Prussian Globe,* G&T Lnr.

Early Scarlet Globe Short Top. Hrs. For similar names see *Early Scarlet Globe.*

Early Scarlet Globe White-Tipped. Fmr Vau.

Similar names. See *Early Scarlet Globe.*

Early Scarlet Olive-Shaped. Anb Brt Btl Bdg Buc C&J *CE* Cox Dlw DD Eic *RE* Fer Ggy *Kei* LB Mgd PM McK *Mau* Min NK Pks Pnt Ptt Ree Rce Roc SC S&F Sim Stk SB Stw S&H Trm Web.

Similar names. See *Scarlet Olive-Shaped.*

Early Scarlet Olive-Shaped Short-Leaved. Rs.

SIMILAR NAMES. See *Scarlet Olive-Shaped.*

Early Scarlet Olive-Shaped White-Tipped. SC Sim.

SIMILAR NAMES. See *Scarlet Olive-Shaped.*

SEEDSMEN'S SYNONYMS. *Early French Breakfast,* Ken Pnt Sim. *Early French Breakfast,* SC.

Early Scarlet Prussian Globe. Lan Mnd Thr Til. For similar names see *Prussian Globe.*

Early Scarlet Short Top. *Kei* Sie. For similar names see *Scarlet Turnip.*

Early Scarlet Turnip. Agn Alx Alr Anb Bak Brd Btl Bkt *Bel* Ber Bow Bgg Bdg Bgs Bng Bui Buc Cam CE Chl Cle C&B CF Cok Cox Crs CA Dlw *DD* Drr Drm Dun Ebr Eic Elt *RE* Evr Ewg Fqr Fax Fer GH Gng Gry G&T Grw TG Hns Hrm Haw Hen *H&C* Hly Hop H&P Iow J&M Jns *Kei* K&W Ken Kg Kos Lam Lea Lnr LB Liv JL Loh Lon Mgd Man PM Mas Mau JCM JMM McK McM May Mic Min MV M&S Mzy Nef *Nol* NI OV Pks JMP Pnt Pir Pne Ptt Pri *Rtk* Raw Ree Roc Rs RP S&R SC S&F Shw Shm Sim Sox Stk SB Stw S&H Tat Thm *Thr* Thb Tpk Trm T&B Vl Wea W&D Wlt Wyg Yng Y&H.

SIMILAR NAMES. See *Scarlet Turnip.*

SEEDSMEN'S SYNONYMS. *Cherry,* Bdg. *Early Red Turnip,* Wd WS. *Red Turnip,* Bdg. *Non Plus Ultra,* Pnt.

Early Scarlet Turnip Forcing. Ber Cur DD H&C Mzy Hrs HP Pir Tem *Thr.*

SIMILAR NAMES. See *Scarlet Turnip.*

SEEDMEN'S SYNONYMS. *Dark Red Ball.* Hrs.

Early Scarlet Turnip Short Top. H&P. For similar names see *Scarlet Turnip.*

Early Scarlet Turnip White-Tipped. Agn Anb Ar Bak Brd Btl Bow Bgg Brk Bui C&J CE CF Cox Crg Dlw DD Ebe RE Evr Ewg Fqr Fer Fle Frd Gls Gry G&T Grw TG Hns Haw Hen Hse Kei K&W Ken Lam Lnr LB Loh McK Mns Mls MV Mzy Neb NK Pg Pks Pir Pnt Ptt Por Qkr Raw Ree Rs RP SC S&O S&F Shw Sim SB Stw Thm *Thr* Thb Til Vl Web W&D Wer Wd WS Wyg Y&H.

SIMILAR NAMES. See *Scarlet Turnip White-Tipped.*

SEEDSMEN'S SYNONYMS. *Rapid Forcing,* Fer. *Rosy Gem,* Fer.

Early Scarlet Turnip White-Tipped Forcing. *Bal* Fer Hrs Lnr Loh Mzy [illegible] S&O Til *Thr.*

SIMILAR NAMES. See *Scarlet Turnip White-Tipped.*

Early Short Top. Sim.

SEEDSMEN'S SYNONYMS. *Long Scarlet,* Sim.

Early Short White Forcing. Bui. For similar names see *Earliest White.*

Early Snow White. GN.

SIMILAR NAMES. Bolgiano's Snow White Turnip, Salzer's Snow White Ice, Snow White Turnip, Snow White Ice.

Early Summer Turnip. Nef.

SEEDSMEN'S SYNONYMS. *Early White Turnip,* Nef.

Early Triumph. *MWJ* Thr *W&D.* For similar names see *Triumph.*

Early White Box. Bri Bui Del Ebe NK *Sox.* For similar names see *White Box.*

SEEDSMEN'S SYNONYMS. *Early White Turnip,* Ebe Ebr Fqr Thr.

Early White Delicacy. M&S. For similar names see *Delicacy.*

Early White Italian Summer. Bui. For similar names see *White Summer.*

Early White Olive-Shaped. Btl Bdg Buc Bur *CE* Crs D&H *RE* Evr Fer GH Grw Hns *Hlm* J&S Koe *Lnr* Mgd Neb Pks Ree Roc RP Sal Stw S&H Web Y&H.

SIMILAR NAMES. See *White Olive-Shaped.*

Early White Olive-Shaped Forcing. Bgs Pnt.

SIMILAR NAMES. See *White Olive-Shaped.*

Early White Stuttgart. Vau. For similar names see *White Stuttgart.*

Early White Surprise. Shw. For similar names see *Surprise.*

Early White Turnip. Anb Ar Brd Btl Ber Bow Brk Bgs Brn Bng Buc Bui Bur C&J CE Cle C&B Col Crs DD Drr Drm Ebr Elt *RE* Evr Ewg Fqr Fst Fer Gdn GH G&T Grw TG Hns Hrn Hen H&C Hly Hlm H&P Jac MWJ J&S *Kei* Ken Kg Lam Lea Lnr LB Liv Loh Mnd Man PM Mns Mau JCM JMM McM Mic Mls Min MV Neb Nef *Nol* NI NK OV Pac Pks HP JMP Pne Pnt Por Pri Qkr Ree Roc RP S&R SC S&F Shw Sim Spf SB Stw S&H Tat Tem TB Thr Til *Tpk* Vl Vau Web W&D Wd WS.

Similar names. See *White Turnip.*

Seedsmen's synonyms. *Early Summer Turnip,* Nef. *Early White Box,* Ebe Ebr Fqr Thr.

Early White Turnip Forcing. *Mgd* Y&H. For similar names see *White Turnip.*

Early White Turnip Short Top. Bak Lan Vau.

Similar names. See *White Turnip.*

Seedsmen's synonyms. *Philadelphia White Box,* Vau.

Early Yellow Ball. Bur.

Early Yellow Olive-Shaped. Y&H.

Similar names. See *Golden Olive-Shaped.*

Early Yellow Summer Turnip. CE Evr GH TG Min NK Tem.

Similar names. See *Golden Summer Turnip.*

Early Yellow Turnip. Brd Crg Fqr Grw Pnt SC.

Similar names. See *Golden Summer Turnip.*

Early Yellow Turnip Forcing. Y&H.

Similar names. See *Golden Summer Turnip.*

Eighteen Day Forcing. Sal. For similar names see *Twenty Day.*

Eighteen Day Non Plus Ultra. Drm. For similar names see *Non Plus Ultra.*

Eighteen Hundred and Thirty-Four. Mau.

Erfurt Dark Red. *Pnt* Sal. For similar names see *Earliest Erfurt.*

Evans' Scarlet Globe Forcing. Entered as *Scarlet Globe Forcing.*

Extra Early Carmine Globe. LB Shm. For similar names see *Earliest Carmine.*

Extra Early Carmine Olive-Shaped. Koe May JCM OV Tpk WS.

Similar names. See *Scarlet Olive-Shaped.*

Extra Early Deep Scarlet Turnip. Bng C&J Gra Ken Pri W&D.

Similar names. See *Scarlet Turnip.*

Seedmen's synonyms. *Non Plus Ultra,* Pri.

Extra Early Deep Scarlet Turnip White-Tipped Forcing. Hrm Lan Mel Y&H.

Similar names. See Scarlet *Turnip White-Tipped.*

Extra Early Erfurt. CA TG Yng. For similar names see *Earliest Erfurt.*

Extra Early Non Plus Ultra. Gra. For similar names see *Non Plus Ultra.*

Extra Early Red Forcing. Pri. For similar names see *Red Turnip.*

Extra Early Rosy Gem. Gra Wdr. For similar names see *Rosy Gem.*

Extra Early Round Red. Brr. For similar names see *Round Dark Red.*

Extra Early Ruby Pearl. Shw. For similar names see *Pearl.*

Extra Early Scarlet Globe. Bng Hlm Shw *Vl* Wd WS Yng.

Similar names. See *Early Scarlet Globe.*

Seedsmen's synonyms. *Cardinal Globe,* Wd.

Extra Early Scarlet Globe White-Tipped. Alr.

Similar names. See *Early Scarlet Globe.*

Extra Early Scarlet Olive-Shaped. Wd.

Similar names. See *Scarlet Olive-Shaped.*

Extra Early Scarlet Prussian Globe. Koe HP.

Similar names. See *Prussian Globe.*

Seedsmen's synonyms. *Vick's Globe,* HP.

Extra Early Scarlet Turnip. Buc Bur Drw Fst Hlm J&S Koe McM Neb Pg Pri Qkr Spf *Vl* Vk.

Similar names. See *Scarlet Turnip.*

Extra Early Scarlet Turnip Forcing. *CE* Gra Hrm Ptt Rce Sie Y&H.

Similar names. See *Scarlet Turnip.*

Extra Early Scarlet Turnip White-Tipped. HP.

Similar names. See *Scarlet Turnip White-Tipped.*

Seedsmen's synonyms. *Gem*, Pnt.

Extra Early Scarlet Turnip White-Tipped Forcing. CE Y&H.

Similar names. See *Scarlet Turnip White-Tipped.*

Extra Early White Olive-Shaped. Ewg Gra Mhl.

Similar names. See *White Olive-Shaped.*

Extra Early White-Tipped. WS. For similar names see *White-Tipped.*

Extra Early White Turnip. Ewg Pri.

Similar names. See *White Turnip.*

Faust's Champion. Entered as *Champion.*

Faust's Favorite. Fst.

Similar names. Tait's Favorite Forcing.

Felton's Improved White Box, Felton's Model White Box, Felton's White Box. Entered as *White Box* and *Model White Box.*

Fire Ball. Bri J&S Mhl *Til.*

Similar names. Early Fire Ball, Early Scarlet Ball, Scarlet Ball White-Tipped, Dark Red Ball, Scarlet Ball.

Seedsmen's synonyms. *Early Bird*, Ham. *Early Carmine Erfurt*, Ham. *Early Round Dark Red*, Ham. *Earliest Erfurt*, Ham. *Non Plus Ultra*, Ham. *Twenty Day*, Ham.

First and Best. CA.

Similar names. Arrington's First and Best.

First Crop. Gry.

First Number. Mhl.

Fourteen Day. Alr. For similar names see *Twenty Day.*

French Breakfast. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Blg Bou Bow Bdg Bgs Bri *Brk* Brn Bru Bng Buc Brb Bur Brr Brw C&J Cam CE Chl Clc C&B CF Crg Crs Cur CA D&H Del DD D&C Drr Drw Drm Ebe Eic Elt Emr RE Ewg Fmr Fst Fax Fer Fld Fle Frd Ger Gls Gdn GH Gra Ggy Gry Gfg G&T Grw Hns Ham Hde Hrm Hrn Hrs Hrv Hst Haw Hen H&C Hly Hlm Hop Hse Hnt H&P Iml Iow Jac MWJ RHJ J&M J&S Jns *Kei* K&W Ken K&F Kg Koe Kos Lam Lan Lea Lnr LB Liv JL Loh Lon Mnd Mgd *Man* PM Mns Mas Mau May JCM JMM McM Mel Mls Min MV Mrs Mzy Neb Nef Nol NI NK OV Old Pac Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug *Rtk* Raw Ree Ren Rce Roc Rs RP Sal S&R Shw S&O Shm Sie Sim Sox Spf SB Stw S&H S&W Tat Tem TB Thm Thr AGT Til Tpk Trm T&B Vl Vau Vk Vin Wat Wea W&D Wer Wll Wlt Wd Wdr WS Wyg Yng Y&H.

Similar names. Bright Breakfast, Early French Breakfast, Improved French Breakfast, Improved Breakfast, Old's Improved French Breakfast, Breakfast.

Seedsmen's synonyms. *Early Scarlet Olive-Shaped White-Tipped*, Ken Pnt Sim. *Improved Bright Breakfast*, Ham. *Half Long White-Tipped*, Bow. *Scarlet Olive-Shaped*, Alx. *Scarlet Olive-Shaped White-Tipped*, SB Stk Vk. *White-Tipped Red Olive-Shaped*, Bdg.

French Café. Lan Thm.

French Forcing. Rs.

Similar names. French Forcing Deep Scarlet, French Forcing Early Deep Scarlet.

Seedsmen's synonyms. *Non Plus Ultra*, Rs.

French Forcing Deep Scarlet. Ebr. For similar names see *French Forcing.*

French Forcing Early Deep Scarlet. CF Mnd Thr.

Similar names. See *French Forcing.*

French White Tail. Ebr.

Giant White Strasburg. Cle. For similar names see *White Strasburg.*

Giant White Stuttgart. Brd Btl Bkt Bel Blg Brk Bdg Bgs Bur *CE* C&B Cox Cur Dlw DD Ebe Evr Fqr Fst Frd Ggy G&T TG Hns Hde Hrn Hrv Hen H&C H&P Iow J&S Jns Ken K&F Lea Lnr *LB* Liv Mau May JCM JMM Mzy Neb *Nol* OV Pir Pnt Pri Qkr Ree Rce Roc SC S&F S&O Spf S&W TB Til *Tpk* Trm Vl Vk Wea W&D Wer Y&H.

Similar names. See *White Stuttgart.*

Glass. Btl Blg Bri *CE* Frd GH Hst Hse Iml Ken Lnr NK Por Rce S&R Til Trm Vl Wll.

Similar names. Barteldes' Glass, Colorado Glass, Denver Glass.

Seedsmen's synonyms. *Cincinnati Market,* Bur NK Wll. *Non Plus Ultra,* Vl.

Golden Ball. Bri. For similar names see *Golden Globe.*

Golden Dresden. Buc Bur Col Cox CA Dlw Drr Iow Liv Mau JCM JMM Mhl Ren Roc.

Similar names. Early Golden Dresden, Improved Golden Dresden, White Dresden.

Golden Globe. Alx Alr Anb Ar Bkt Blg Bow Bdg Bgs Bur *CE* Cle Col Crs Cur DD Ebe *Eic* Fst Fer Frd GH Gfg G&T TG Hrv H&C Hlm H&P Iml Koe Lan *LB* Liv Loh Mns May JCM JMM McM Mhl Min Neb JMP Pir Por Pri Roc Sal S&R SC Shm Sie Stk Stw TB Til Tpk Trm Vl Wd WS Y&H.

Similar names. Shumway's Golden Globe, Yellow Globe, Improved Golden Ball. See also *Golden Summer Turnip, Golden Olive-Shaped.*

Seedsmen's synonyms. *Golden Summer,* Bou S&R. *Yellow Summer,* Anb SC.

Golden Olive-Shaped. Bdg *Mau* S&F.

Similar names. Golden Yellow Olive-Shaped, Dallwig's Golden Yellow Oval-Shaped, Early Golden Yellow Oval-Shaped, Yellow Olive-Shaped, Yellow Oval-Shaped, Early Yellow Olive-Shaped. See also *Golden Globe, Golden Summer Turnip.*

Seedsmen's synonyms. *Yellow Olive-Shaped,* Wdr.

Golden Perfection. Bui Gdn.

Seedsmen's synonyms. *Buist's Yellow Summer Turnip,* Bui.

Golden Summer Turnip. Brk Bri Buc CE C&B Ebr Ewg Gls Gra Ggy RHJ Lnr Mnd Mau MV Rce *Sox* Tat Thr Wer.

Similar names. Yellow Summer Turnip, Buist's Yellow Summer Turnip, Large Yellow Summer Turnip, Improved Large Yellow Summer Turnip, Golden Yellow Summer, Early Yellow Turnip, Early Yellow Turnip Forcing, Early Yellow Summer Turnip. See also *Golden Globe, Golden Olive-Shaped.*

Golden Yellow Oval-Shaped. Dlw. For similar names see *Golden Olive-Shaped.*

Seedsmen's synonyms. *Yellow Summer Turnip,* C&B Ebr.

Golden Yellow Olive-Shaped. Bgs *CE* Drr J&S JMM M&S Nol Rce Thr Vk Wea W&D.

Seedsmen's synonyms. *Surprise,* J&S.

Golden Yellow Summer. C&J Ggy Hrs Hp *S&W* Vau Yng.

Similar names. See *Golden Summer Turnip.*

Gray Summer Turnip. Bkt Bri Buc Cle Cur Fer GH Hrv Koe Kos Lnr Liv MV Nef HP Ptt *Rce* Roc S&F *Sox* S&W Til W&D Wer Yng.

Griffing's Early Long Scarlet. Entered as *Early Long Scarlet.*

Half Long. Mrs.

Seedsmen's synonyms. *Olive-Shaped,* Mrs.

Similar names. Half Long White-Tipped, Half Long Olive-Shaped.

Half Long Black Autumn. Bng *Nol* W&D.

Similar names. See *Long Black Spanish.*

Half Long Black Spanish. Brn C&B Fer *Gls* Hen Iml J&S MWJ *Lnr Mns* Nol Raw S&W Thr Y&H.

Similar names. See *Long Black Spanish.*

Half Long Black Winter. *Dlw* Fer *Mhl* Pri Vau.

Similar names. See *Long Black Spanish.*

Half Long Brightest Scarlet. Cle Mhl *Thm.*

Similar names. See *Long Scarlet.*

Half Long Deep Scarlet. Bak Bkt Bow Bru Buc Bur *Cam CE* D&H Drr Ebe Eic RE Fer GH TG Hlm RHJ J&S Jns Ken Kg Lan *Lnr Liv* Mgd *Mns* HP *Put* Por Ren Rce Sal S&R Shw TB Thr *Vl* Vau.

Similar names. See *Half Long Scarlet.*

Seedsmen's synonyms. *Paris Beauty*, Bur J&S Hlm Mgd.

Half Long French Scarlet. *Eic* Gdn Jac Stk.

Similar names. See *Half Long Scarlet.*

Half Long Olive-Shaped. Pg. For similar names see *Half Long.*

Half Long Red. Stw Vin. For similar names see *Half Long Scarlet.*

Half Long Scarlet. Sie.

Similar names. Early Half Long Scarlet, Half Long French Scarlet, Half Long Deep Scarlet, Early Half Long Deep Scarlet, Half Long Red, Wonderful Half Long Red, Long Red.

Seedsmen's synonyms. *Early Olive-Shaped*, Bow.

Half Long White Strasburg. GH. For similar names see *White Strasburg.*

Half Long White Summer. SC.

Seedsmen's synonyms. *Delicacy*, SC.

Half Long White-Tipped. Bow. For similar names see *Half Long.*

Seedsmen's synonyms. *French Breakfast*, Bow.

Hamburg Forcing. *Dlw.*

Hammond's Early Deep Scarlet, Hammond's Long Brightest Scarlet, Hammond's Snowball. Entered as *Early Deep Scarlet, Long Brightest Scarlet*, and *Snowball.*

Henderson's Rose Turnip. Entered as *Rose Turnip.*

Holmes' Dainty Forcing, Holmes' Royal Red Forcing. Entered as *Dainty Forcing* and *Royal Red Forcing.*

Hospital. Col Crs Cur Ebe Hrn Lan RP Stw Vk.

Seedsmen's synonyms. *Long White Strasburg*, Kra. *White Naples*, RP. *White Strasburg*, Col Cur Crs Ebe Lan Stw, etc.

Icicle. Bkt *Buc* Bur *CE* Chl Col Cox Cur D&H Drr Drw Ebr *Fmr Fld Frd* Ggy *Hrs H&C* Hlm H&P Iow *Lan Liv* Mau *May* Mhl *MV* Old *Pne* Ptt Raw *Ren* Shw *Sox* S&H *Trm Vl* Vau Wea.

Similar names. White Icicle, Long White Icicle.

Improved Breakfast, Improved Chartier, Improved Early Long Scarlet Short Top, Improved Early Scarlet Globe, Improved Early Scarlet Turnip, Improved French Breakfast, Improved Golden Ball, Improved Golden Dresden, Improved Half Long Black Spanish, Improved Large Yellow Summer Turnip, Improved Long Scarlet Short Top, Improved Scarlet Button, Improved Shepherd, Improved White Strasburg. Entered as *Breakfast, Chartier, Early Long Scarlet Short Top*, etc.

In and Out. Bru.

Similar names. Bruce's In and Out.

Indianapolis White Globe. H&P. For similar names see *White Globe.*

Japanese Long White. Cur Wer.

Similar names. Japanese Scarlet, Japanese Winter. See also *Long White.*

Japanese Scarlet. JMM. For similar names see *Japanese Long White.*

Japanese Winter. Shm. For similar names see *Japanese Long White.*

Johnson and Stokes' Scarlet Olive-Shaped. Entered as *Scarlet Olive-Shaped.*

Jones' Scarlet Conical. Entered as *Scarlet Conical.*

Just So. Mau.

Krewson's Oblong Black Spanish. Drr Lan.

Similar names. See *Long Black Spanish.*

Lady Finger. Alx Alr Ar Brd Bow Bgs Bri Bru Bui Bur Brr Cam Cle Col Cox *Crg* D&H *DD* Dun RE Fmr Fer Fld Frd GH Gry G&T Grw Hrn Hen Hse H&P Iml J&M J&S Jns K&F Kg *Kos* Lam Lea Lnr JL Mgd Mns May JMM McK McM Mel Mic MV Neb Nol OV Pac Poo Por Pri Qkr RP S&R Shw S&O Shm Sox Spf Tex Thr Til *Tpk Vl* Vk Wat W&D *Wyg* Y&H.

Similar names. White Lady Finger, Landreth's White Lady Finger, Moore & Simon's Improved White Lady Finger, Moore & Simon's Pink Lady Finger, Long White Lady Finger, Early Long White Lady Finger, Pink Lady Finger.

Seedsmen's synonyms. *Early Long White Vienna,* Neb. *Long White Vienna,* Alx Bui Bur Fer Hen Thr, etc. *Vienna,* Sox. *White Vienna,* Bgs Ebe RE G&T Lan McK, etc.

Landreth's Earliest. Lan. For similar names see *Earliest Forcing.*

Landreth's White Lady Finger. Entered as *White Lady Finger.*

Large White. Blg.

Large White Baltimore. Rce. For similar names see *Long White.*

Large White Globe. Bur CE Cle D&C Evr Fst Hlm Vl.

Similar names. See *White Globe.*

Seedsmen's synonyms. *Large White Summer Turnip,* J&S.

Large White Russian. Ggy. For similar names see *White Russian.*

Seedsmen's synonyms. *California Winter,* Ggy.

Large White Spanish. Blg Elt Fer G&T Iml J&S *Lnr* Mnd Min MV Nol *Sox* Thr Vk.

Similar names. See *White Spanish.*

Large White Summer. Brn *CE* Drr G&T PM S&W.

Similar names. See *White Summer.*

Large White Summer Turnip. Brk Drr Elt Emr Fer GH J&S Ken *Lnr* Liv Mns Mhl Rce Tex Thr Til Y&H.

Similar names. See *White Summer.*

Seedsmen's synonyms. *Large White Globe,* J&S.

Large Yellow Summer Turnip. Drr Elt J&S *Lnr* Mhl.

Similar names. See *Golden Summer Turnip.*

Late Deep Scarlet Turnip. GH. For similar names see *Scarlet Turnip.*

Leafless. Bri Buc Bur Drm Evr GN Ggy Ham Liv JL *Mns* Mau Mls NK WS.

Similar names. Leafless Forcing, Leafless Scarlet Forcing, Leafless Bright Red Forcing.

Leafless Bright Red Forcing. Lnr. For similar names see *Leafless.*

Leafless Forcing. Vau. For similar names see *Leafless.*

Leafless Scarlet Forcing. Bui. For similar names see *Leafless.*

Leonard's Three Leaf. Entered as *Three Leaf.*

Leavings' Improved Shepherd. Entered as *Shepherd.*

Lightning Scarlet Turnip Forcing. Bui.

Similar names. See *Scarlet Turnip.*

Lily White. Bru.

Livingston's Pearl, Livingston's Pearl Forcing. Entered as *Pearl* and *Pearl Forcing.*

Long Black Corsican. Mnd. For similar names see *Long Black Spanish.*

Long Black Spanish. Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Bou Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bur Brr C&J CE Cle C&B Col CF Crg Crs Cur D&H DD Drr Ebe Eic Elt Emr RE Evr Fmr Fqr Fst Fer Frd Gls Gdn GH Gra Gry G&T Grw Hns Hde Hrn Hrs Hrv Hst Haw Hen H&C Hly Hlm H&P Iow Jac MWJ J&S Jns Ken Kg Koe Kos Lam Lan Lnr LB Liv Loh *PM* Mns May JCM JMM Mhl Min MV Neb Nef Nol NK OV Old Pac Pg Pks HP Pnt Por Pri Raw Rce Roc Rs RP S&R Shw S&O Sie *Sim* Sox SB S&H S&W Tat Tex TB Thm Thr Til Tpk Vl Vau Vk Vin Wea Web W&D Wd Wdr WS Y&H.

Similar names. Long Black Corsican, Long Black Summer, Long Black

Winter, California Mammoth Long Black Spanish, Black Spanish, Parisian Black Spanish, Black Spanish Oval-Shaped, Black Spanish Oblong-Shaped, Krewson's Oblong Black Spanish, Round Black Spanish, Round Black Winter, Half Long Black Spanish, Thorburn Improved Half Long Black Spanish, Improved Half Long Black Spanish, Half Long Black Autumn, Half Long Black Winter.

Seedsmen's synonyms. *Long Black Winter*, Fqr. *Long Black Fall*, Anb Ken Ptt SC.

Long Black Summer. Fer GH *Hlm* LB *Y&H*.

Similar names. See *Long Black Spanish*.

Long Black Winter. Fqr S&F. For similar names see *Long Black Spanish*.

Seedsmen's synonyms. *Long Black Spanish*, Fqr.

Long Brightest Scarlet. Ar Bak Brd Brt Btl Bkt Brk Bru Bui Bur Brw *CE* C&B Col Crs D&H Eic Frd GH Ggy Gry Grw Hns Ham Hrm Hen Hlm Hop Hse Ken Kg Lam Lan Lnr LB Liv Mgd PM May JCM Mic Mls MV Mrs NI Pne Pnt Ree Sal S&O Shm Sie Sox AGT Til Trm VI Vau Wd WS Wyg Yng.

Similar names. See *Long Scarlet*.

Seedsmen's synonyms. *Long Cardinal*, Ham Bur Hlm D&H Hse. *Cardinal*, Bui Brd Eic Sie Vau. *Cardinal White-Tipped*, Liv May.

Long Brightest Scarlet White-Tipped. Alr *Bow* DD RE Evr Fqr Fer Fle Hrn J&S *Jns Lnr* LB JL Loh Mns May Neb Nol Pg Pri Shw Thr W&D Wdr.

Similar names. See *Long Scarlet*.

Seedsmen's synonyms. *Long Cardinal*, J&S.

Long Cardinal. Bak Bur D&C Grw Ham Hbt Hse Mau Ree *Wat*.

Similar names. Cardinal, Cardinal Globe, Shumway's Cardinal.

Seedsmen's synonyms. *Brightest Scarlet*, Grw. *Hammond's Long Brightest Scarlet*, Ham. *Long Brightest Scarlet White-Tipped*, J&S. *Long Brightest Scarlet*, Bur Hlm D&H Hse.

Long Chartier. Brk *CE* D&H Ebe Hly Ren Stk Tat.

Similar names. See *Chartier*.

Long Chinese Rose Winter. Sim. For similar names see *Chinese Rose Winter*.

Long Gray Laon. Loh. For similar names see *Long Gray Winter*.

Long Gray Winter. Cur Ebe Kei.

Similar names. Long Gray Laon.

Long Purple Rose. Mnd. For similar names see *Long Rose*.

Long Red. Brr. For similar names see *Half Long Scarlet*.

Long Red White Longfellow. Sal.

Long Rose. Lan.

Similar names. Long Rose White-Tipped, Long Purple Rose.

Seedsmen's synonyms. *Chartier*, Bak Lan.

Long Rose White-Tipped. Neb SC. For similar names see *Long Rose*.

Seedsmen's synonyms. *Chartier*, Hde Neb Pnt SC.

Long Salmon. *Kei* Pri. For similar names see *Salmon*.

Long Scarlet. Eas *RE* Ewg Fax Fer Gls Gra Ggy G&T Hrm Haw Hbt MWJ Lan Man PM Mns Mau Mrs Mzy *Pac* Pne Rtk Ren Sal Sim T&B.

Similar names. Carter's Long Scarlet, Maule's Long Scarlet, Salzer's Long Scarlet, Long Scarlet Short Top, Covent Garden Long Scarlet, Long Scarlet Chartier, Long Scarlet Chartier White-Tipped, Improved Long Scarlet Short Top, Vick's Improved Long Scarlet Short Top, Arlington Long Scarlet, Boston Long Scarlet, Cincinnati Long Scarlet, Market Gardener's Long Scarlet, Market Gardener's Extra Long Scarlet, Market Gardener's Ideal Long Scarlet, Philadelphia Gardener's Long Scarlet, Philadelphia Gardener's Long Scarlet Short Top, Long Scarlet White-Tipped, Early Long Scarlet, Early Long Scarlet Short Top, Improved Early Long Brightest Scarlet White-Tipped, Early Long Scarlet Short

Top, Bolgiano's Early Long Scarlet, Shumway's Long Brightest Scarlet, Early Long Brightest Scarlet, Buist's Early Long Scarlet, Griffing's Early Long Scarlet, Market Gardener's Early Long Scarlet, Market Gardener's Early Long Scarlet Short Top, Long Brightest Scarlet, Half Long Brightest Scarlet, Long Brightest Scarlet White-Tipped, Hammond's Long Brightest Scarlet.

Seedsmen's synonyms. *Early Short Top*, Sim. *Monthly*, RE.

Long Scarlet Chartier. RHJ Wd WS. For similar names see *Chartier, Long Scarlet.*

Long Scarlet Chartier White-Tipped. MV Nol *Sox* Thr.

Similar names. See *Chartier, Long Scarlet.*

Long Scarlet Short Top. Alr Anb Ar Bai Bak Brd Brt Bkt Bel Bou Brk Bdg Bri Brn Bng Brb *Cam* Cle C&B Crg Crs Cur Dlw Drr Dun Emr RE Frd Gls Gng Ggy Gry Hns Hrn Hrs Hrv Haw Hen Hly Hop H&P Jns K&W Ken Kg Koe Kos Lan Lea JL Mas May JMM McM Mic Mhl Mls Min MV Neb Nol NI NK OV Prn *Pnt* Poo Pot Pri Pug Rce S&O Shm Sie *Sox* SB S&W Tat Tex Thr Thb *Tlh Tpk* Vk W&D Wer Wll Wlt Yng Y&H.

Similar names. See *Long Scarlet.*

Seedsmen's synonyms. *Covent Garden*, Ggy. *Salmon*, Mhl.

Long Scarlet White-Tipped. Fmr RHJ. For similar names see *Long Scarlet.*

Long White. Cam *Crg Kei.*

Similar names. Buist's Early Long White, Long White Winter, Long White Summer, Long White Russian, Japanese Long White, Bolgiano's Large White, Large White Baltimore, California Long White Spanish, Long White Spanish, Japanese Long White, Long White Naples, Long White Vienna, Long White Strasburg, Early Long White Vienna, Early Long White.

Long White Chartier. Liv. For similar names see *Chartier.*

Seedsmen's synonyms. *Nonpareil*, Liv.

Long White Lady Finger. CE *Eic* Ken Mhl Rce *Shw* TB.

Similar names. See *Lady Finger.*

Long White Icicle. *Bdg MWJ* Lan *Lnr Sim* Thr. For similar names see *Icicle.*

Long White Naples. Bkt Bdg Bgs *CE* Cle Crs DD Fer GH Hrn H&P Lam Lea *LB* Loh Mnd May JCM Mzy Nef Pri Ren Rce Sal SC S&F Sim Tat Thr Tpk Web Wd WS Y&H.

Similar names. See *White Naples, Long White.*

Long White Russian. Cle Koe Lan. For similar names see *White Russian.*

Long White Spanish. Brt Bkt Blg Bgs Brn Bur *CE* DD Drr Ger GH Hrn H&P MWJ Ken *Kg* Kos Lan Loh Mns Mzy Neb Nef HP Pnt Rce SC S&O Sox Til Tpk Vau Wd WS Y&H.

Similar names. See *White Spanish, Long White.*

Seedsmen's synonyms. *Long White Fall*, Ken SC.

Long White Strasburg. D&H Del Koe Lan RP Shw Shm Vau Web.

Similar names. See *White Strasburg.*

Seedsmen's synonyms. *Hospital*, Kra.

Long White Summer. SC. For similar names see *Long White.*

Long White Vienna. Alx Alr Anb Bai Brd Btl Bkt Ber Bow Brk Brn Bru Bui Bur *CE* C&B Col CF Cox Crs Cur DD Drr Evr Fmr Fst Fer Frd Gls Gdn GH Hns Hrn Hst Hen H&C Hly Hlm Iml Jac MWJ J&M J&S Jns *Kos* Lnr LB Loh Mgd PM Mns Mic MV Nol NK Pac HP Pir Prn Qkr Ree Rce SC Shw S&O *Sim Sox* Spf *S&W* Tat Tex Thm Thr *Tlh* Til Trm *Vt* Vau Vk *Wat* W&D *Wyg* Yng Y&H.

Similar names. See *White Vienna, Long White.*

Seedsmen's synonyms. *Lady Finger*, Bui Bur Fer Hen Thr Vk, etc. *White Lady Finger*, DD Liv Mau SC.

Long White Winter. S&F. For similar names see *Long White.*

McCullough's Cincinnati Market, McCullough's Norwood Long White. Entered as *Cincinnati Market* and *Norwood Long White.*

McMillan's Early Scarlet Turnip, McMillan's Extra Early Scarlet Turnip. Entered as *Early Scarlet Turnip* and *Extra Early Scarlet Turnip.*

Mammoth White Russian Winter. C&J HP.

Similar names. See *White Russian.*

Seedsmen's synonyms. *California Mammoth White,* HP.

Mammoth White Winter. JMM Shm.

Similar names. See *California Mammoth White Winter.*

Market. Alr.

Similar names. Shumway's Market, Vaughan's Market.

Seedsmen's synonyms. *Shepherd,* Alr.

Market Gardener's Early Long Scarlet. Ar Lan Rim SC Stw.

Similar names. See *Long Scarlet.*

Market Gardener's Early Long Scarlet Short Top. HP Pnt.

Similar names. See *Long Scarlet.*

Market Gardener's Extra Long Scarlet. Bri. For similar names see *Long Scarlet.*

Market Gardener's Ideal Long Scarlet. Evr Rob.

Similar names. See *Long Scarlet.*

Market Gardener's Long Scarlet. Bgs K&F *Pnt* Spf Vl.

Similar names. See *Long Scarlet.*

Maule's Earliest Scarlet, Maule's Earliest White, Maule's Long Scarlet. Entered as *Earliest Scarlet, Earliest White,* and *Long Scarlet.*

Maule's Winter. Mau.

Mills' Earliest. Mls. For similar names see *Earliest Forcing.*

Model White Box. Alr Cur DD Iow J&S *Mns* Wll. For similar names see *White Box.*

Seedsmen's synonyms. *Crystal Forcing,* Alr.

Monthly. RE.

Seedsmen's synonyms. *Long Scarlet,* RE.

Moore's Carmine Forcing, Moore's Quick Selling. Entered as *Carmine Forcing* and *Quick Selling.*

Moore and Simon's California Cherry, Moore & Simon's Early White Delicacy, Moore & Simon's Improved White Lady Finger, Moore & Simon's Pink Lady Finger, Moore & Simon's Red Strawberry. Entered as *California Cherry, Early White Delicacy, White Lady Finger, Pink Lady Finger,* and *Red Strawberry.*

Newcome. Ebe Evr Hst H&P J&S Vl.

Seedsmen's synonyms. *White Olive-Shaped,* Ebe.

Nonpareil. Bkt Bri.

Seedsmen's synonyms. *White Chartier,* Bkt Bri. *Long White Chartier,* Liv.

Non Plus Ultra. Alx Bai Bak Brd Btl Bow Bgs Bri Bru Bui Brr CE Col Crs Dlw *DD* RE Evr Ewg Fmr Fqr Fer Fle Frd *Gls* Ggy Grw Hns Hde Hrm Hrv H&P Iow Jns K&W Koe Lam Lnr *LB* Liv Loh Mgd May *JCM* JMM Mic Pg Pks Pnt Pri Raw Rce Roc Rs SC Shm Sie Sox SB S&W Tat Til Vl Vau Wea Web Wyg.

Similar names. Bruce's Non Plus Ultra, Early Non Plus Ultra, Extra Early Non Plus Ultra, Non Plus Ultra Forcing, Eighteen Day Non Plus Ultra, Non Plus Ultra Deep Scarlet Turnip.

Seedsmen's synonyms. *Crimson Bunch,* Ren. *Dark Red Ball,* Col Frd. *Deep Scarlet Forcing,* SC. *Deep Scarlet Forcing Turnip,* Drm Liv. *Earliest Erfurt,* Ham. *Earliest Scarlet French Forcing Turnip,* Fqr. *Earliest Scarlet Turnip,* Pnt. *Early Bird,* Ham. *Early Deep Scarlet Turnip,* Cur Fer Lam Pg. *Early Deep Scarlet Turnip Forcing,* Col DD Fle Loh Jns. *Early Round Dark Red,* Ham Vk. *Early*

Round Deep Scarlet Forcing, Bow. *Extra Early Deep Scarlet Turnip*, Pri. *Fire Ball*, Ham. *French Forcing*, Rs. *Glass*, Vl. *Round Dark Red*, Frd. *Scarlet Forcing*, Mgd. *Twenty Day Forcing*, Raw.

Non Plus Ultra Deep Scarlet Turnip. Ebe Ggy.

Similar names. See *Non Plus Ultra.*

Non Plus Ultra Forcing. *Nol* Shw W&D. For similar names see *Non Plus Ultra.*

Norwood Long White. JMM.

Similar names. McCullough's Norwood Long White.

Olds' Improved French Breakfast. Entered as *French Breakfast.*

Olive Gem. *McK* Ren. For similar names see *Rosy Gem.*

Olive Rose. JMP. For similar names see *Rosy Gem.*

Olive-Shaped. Hnt Mrs.

Similar names. See *Scarlet Olive-Shaped, White Olive-Shaped.*

Seedsmen's synonyms. *Half Long*, Mrs.

Osaka. Blg Bur D&H J&S.

Paris Beauty. Bgs Bur J&S Mgd *Mns May* SB.

Similar names. Paris Red Beauty, Scarlet Beauty.

Seedsmen's synonyms. *Half Long Deep Scarlet*, Bur Hlm J&S Mgd. *Red Rocket*, Bgs.

Parisian Black Spanish. M&S. For similar names see *Long Black Spanish.*

Paris Red Beauty. M&S. For similar names see *Paris Beauty.*

Pearl. Bri JL.

Similar names. Livingston's Pearl, Livingston's Pearl Forcing, Pearl Forcing, White Pearl, Ruby Pearl, Extra Early Ruby Pearl.

Pearl Forcing. Bkt Frd *Hlm* Iml Liv Mns Mzy HP Rce SB.

Similar names. See *Pearl.*

Perfection Chinese Rose Winter. M&S.

Similar names. See *Chinese Rose Winter.*

Perpetual White Summer. Iow. For similar names see *White Summer.*

Philadelphia Gardener's Long Scarlet. J&S. For similar names see *Long Scarlet.*

Philadelphia Gardener's Long Scarlet Short Top. M&S.

Similar names. See *Long Scarlet.*

Philadelphia White Box. Ar Brd Bgs Brn Bur CE CF Cox Crs Drr Eic Fst TG Hrn Hst Jns K&F Koe Lan *LB* Liv PM May Mhl M&S Neb OV Pnt Rce *Rim* RP SC *Shw* S&O Sie Spf Stw Tex *Tpk* Vl Vk Web Wyg *Y&H.*

Similar names. See *White Box.*

Seedsmen's synonyms. *Earliest White Turnip Short Top*, Vau.

Philipps' Dom Pedro. Entered as *Dom Pedro.*

Pink Lady Finger. M&S *Nol.* For similar names see *Lady Finger.*

Price & Reed's Forcer. Pri.

Prussian Globe. Bri Hlm MWJ Lnr.

Similar names. Early Scarlet Prussian Globe, Extra Early Scarlet Prussian Globe, Prussian Scarlet Globe.

Seedsmen's synonyms. *Early Scarlet Globe*, G&T Lnr.

Prussian Scarlet Globe. Bui G&T.

Similar names. See *Early Scarlet Globe, Prussian Globe.*

Purple Summer Turnip. Bdg. For similar names see *Early Purple Turnip.*

Quaker City Early White Box. Qkr. For similar names see *White Box.*

Queen of the Market. May.

Quick Selling. M&S.

Similar names. Moore's Quick Selling.

Raphanus Caudatus. Bdg Thr.

Seedsmen's synonyms. *Edible Pod*, Thr. *Rat-Tailed*, Thr.

Rapid Forcing. Bkt Bri Buc C&B Elt RE Hrs Hen Hly J&S Poo Pri Pug Roc Shm Vin.

Similar names. Buckbee's Rapid Forcing.

Seedsmen's synonyms. *Earliest Scarlet White-Tipped Forcing*, Hrs. *Early Carmine Erfurt*, Alr. *Early Scarlet Turnip White-Tipped*, Fer. *Rosy Gem*, Bkt Bri Fer J&S Hrs Pri.

Rawson's Scarlet Conical. Entered as *Scarlet Conical.*

Red Forcing Turnip. C&B Hen. For similar names see *Red Turnip.*

Red Rocket. Bgs Bui Bur D&H Frd Hrs Hen *Thr* Wyg.

Similar names. White Tipped Rocket, White Rocket.

Seedsmen's synonyms. *Carmine Olive*, Ham. *Earliest Carmine*, Bur Frd. *Earliest Carmine Olive*, Bui. *Early Scarlet Globe Short Top*, Hrs. *Improved Scarlet Globe*, Ham. *Paris Beauty*, Bgs. *Scarlet Globe*, Bur. *Scarlet Olive*, Ham. *Short Leaf*, Ham. *Startle*, Frd Hrs Ham J&S. *Twenty Day Forcing*, Frd Hrs J&S.

Red Strasburg. Min M&S. For similar names see *White Strasburg.*

Red Strawberry. M&S.

Similar names. Moore & Simon's Red Strawberry.

Red Turnip. Ggy Hen Vin.

Similar names. Deep Blood Red Turnip, Early Deep Blood Red Turnip, Red Forcing Turnip, Early Red Turnip, Early Deep Red Turnip, Early Deep Red Turnip Forcing, Bright Red Turnip Forcing, Extra Early Red Forcing, Holmes' Royal Red Forcing.

Seedsmen's synonyms. *Cherry*, Bdg. *Early Scarlet Turnip*, Bdg.

Rennie's White-Tipped. Ren. For similar names see *White-Tipped.*

Rettig. J&S.

Seedsmen's synonyms. *Round Black Spanish*, J&S.

Rockford Beauty. *Buc.*

Rockford Market. Buc GN Roc.

Similar names. Buckbee's Rockford Market.

Rose Gem Forcing. Evr Vl. For similar names see *Rosy Gem.*

Rose Olive-Shaped. Brd Bkt Bel Bgs Hrs Mls Vin.

Similar names. See *Scarlet Olive-Shaped.*

Rose Queen. Cox. For similar names see *Rosy Gem.*

Rose Turnip. *CE* C&B Hen Rce.

Similar names. Henderson's Rose Turnip, Early Rose Turnip.

Rosy Gem. Alr Ar Brd Btl Bkt *Bel* Bgs Bri Buc Bur Brw *CE* Cle Cok D&H Del Drm Ebe RE Fmr Fle Frd GH Gng GN Grw TG Ham Hrs Hrv Hst Haw Hbt Hop Hse Iow J&S Kg Lnr LB Liv Mgd Man JMM McK *MV* Mrs Neb NK Pir Pnt Pri Ren Rce Roc Rs RP *Shw* S&O Shm Sie Sim SB Tem Tex *Tlh* Til Trm T&B Wea Web Y&H.

Similar names. Olive Gem, Sutton's Rosy Gem, Rosy Gem White-Tipped, Extra Early Rosy Gem, Rosy Queen, Rose Queen, Cox's Rose Queen, Early Rose Gem, Rose Gem Forcing, Scarlet Gem White-Tipped, Round Rose White-Tipped, Round Rose, Olive Rose.

Seedsmen's synonyms. *Deep Scarlet White-Tipped Forcing*, Mgd. *Earliest Scarlet White-Tipped Forcing*, Hrs. *Early Scarlet Turnip White-Tipped*, Fer. *Rapid Forcing*, Bkt Bri Fer Hrs J&S Pri. *Ruby Pearl*, Ham. *Scarlet Turnip White-Tipped*, Bur Cur Vk. *White-Tipped Forcing*, RE Ren. *White-Tipped Scarlet Ball*, Ham Rs Tem. *White-Tipped Scarlet Globe*, Wdr.

Rosy Gem White-Tipped. Crs. For similar names see *Rosy Gem.*

Rosy Queen. May *Tlh Tpk.* For similar names see *Rosy Gem.*

Round Black Spanish. Alx Alr Bai Brd Btl Bkt Blg Bow Bgg Brk Bdg Bgs Bri Bru Bng Buc Bur C&J *CE* Cle C&B Cox Crs Cur DD Drr Elt Emr Evr Fmr Fqr

Fst Fer Ger Gls Gdn GH Gra Gry G&T Grw TG Hns Hde Hrm Hrn Hrv H&C Hlm H&P Jac J&M J&S Jns Ken Koe Kos Lam Lan Lea Lnr LB Liv Loh Mnd Man *PM* Mns May JCM Mhl MV M&S Mzy Neb Nol OV Pac Pks HP JMP Pnt Por Pri Raw Rce Roc S&R SC Shw S&O Sie Sox SB Stw S&W Tex Thm Thr Til *Tpk* Vl Vau Vk Vin *Wat* Wea W&D Wer Wdr WS Yng Y&H.

Similar names. See *Long Black Spanish.*

Seedsmen's synonyms. *Round Black Winter,* Bgs Fqr. *Round Black Fall,* Ken SC. *Rettig* J&S.

Round Black Winter. Fqr S&F. For similar names see *Long Black Spanish.*

Seedsmen's synonyms. *Round Black Spanish,* Bgs Fqr. *Round Black Fall,* Ptt.

Round Chinese Rose Winter. Bkt Bgg Hde.

Similar names. See *Chinese Rose Winter.*

Round Chinese Scarlet Winter. Bgs Col Drr Ebr Frd H&C Iow J&S Lan Mnd Mhl Pnt SC Tex Thr.

Similar names. See *Chinese Rose Winter.*

Round Dark Red. Col Frd.

Similar names. Early Round Dark Red, Early Oval Dark Red, Early Round Bright Red, Extra Early Round Red, Round Red, Round Red Forcing.

Seedsmen's synonyms. *Dark Red Ball,* Frd. *Early Deep Scarlet Turnip,* Col. *Non Plus Ultra,* Frd.

Round Deep Scarlet. Cle. For similar names see *Scarlet Turnip.*

Round Red. Fld Hrs. For similar names see *Round Dark Red.*

Seedsmen's synonyms. *Scarlet Turnip,* Hrs.

Round Red Forcing. Drr Mhl. For similar names see *Round Dark Red.*

Seedsmen's synonyms. *Button,* Mhl.

Round Rose. Thm. For similar names see *Rosy Gem.*

Round Rose White-Tipped. Thm. For similar names see *Rosy Gem.*

Round Scarlet China. *Bur* Col Drr Iow Lan J&S *Mns Rce* Tex Thr *WS.*

Seedsmen's synonyms. *China Globe,* Iow Tex.

Round Scarlet Pamir. HP.

Round Scarlet White-Tipped. Pot.

Similar names. See *Scarlet Turnip White-Tipped.*

Round White. Fld. For similar names see *White Globe.*

Round White Forcing. Drr Mhl.

Round White Munich. Mnd Pnt SC.

Seedsmen's synonyms. *Round White Fall,* SC.

Round White Spanish. Blg Bgs G&T *Mns.* For similar names see *White Spanish.*

Round White Stuttgart. Lan. For similar names see *White Stuttgart.*

Round White Turnip. Hrs. For similar names see *White Turnip.*

Royal Red Forcing. Hlm *Vl.*

Similar names. Holmes' Royal Red Forcing.

Seedsmen's synonyms. *Rosy Gem,* Ham. *Scarlet Turnip White-Tipped,* Ham. *White-Tipped Scarlet Ball,* Ham.

Ruby Pearl. Bur Ham *Mns* Mau Ree. For similar names see *Pearl.*

St. Louis White Summer. CE DD K&F Pnt SC Spf *Trm.*

Similar names. See *White Summer.*

Sakurajima Mammoth. Chl *Thr.*

Salmon. J&S Mhl.

Similar names. Long Salmon.

Seedsmen's synonyms. *Early Long Scarlet,* J&S. *Long Scarlet Short Top,* Mhl.

Salzer's Blood Red Snow White-Tipped, Salzer's Earliest Scarlet Globe, Salzer's Earliest White, Salzer's Early Bird, Salzer's Long Scarlet, Salzer's Snow White Ice. Entered as *Blood Red Snow White-Tipped, Earliest Scarlet Globe, Earliest White, Early Bird, Long Scarlet,* and *Snow White Ice.*

Salzer's Every Day. Sal.

Sandwich. D&H Hen W&D.

Scarlet Ball. JL.

Similar names. See *Fire Ball.*

Seedsmen's synonyms. *Pamir*, JL.

Scarlet Ball White-Tipped. Bur Ham Tem.

Similar names. See *Fire Ball.*

Seedsmen's synonyms. *Rosy Gem*, Ham Rs Tem. *Ruby Pearl*, Ham. *Scarlet Turnip White-Tipped*, Ham.

Scarlet Beauty. D&H. For similar names see *Paris Beauty.*

Scarlet Button. Bui Bur *CE* D&H Hst Hbt *Hlm* Mgd Mhl Rce Sie.

Similar names. Improved Scarlet Button, Early Scarlet Button, Burpee's Earliest Scarlet Button.

Seedsmen's synonyms. *Burpee's Earliest*, Bur Rce Sie. *Buist's Earliest Scarlet Turnip*, Bui. *Deep Scarlet Turnip*, Mgd. *Earliest Round Dark Red*, J&S.

Scarlet Conical. D&H Jns Raw.

Similar names. Jones' Scarlet Conical, Rawson's Scarlet Conical.

Scarlet Frame. Drr. For similar names see *Wood's Early Frame.*

Scarlet Gem White-Tipped. Drr Ebr Gng. For similar names see *Rosy Gem.*

Scarlet Globe. *Blg* Bdg Bgs Bru Bur Brr *CE* Cle *Cox* Eic Elt Fst Gdn Gry *H&C* Hly *Hlm* J&S *LB* PM Mns *Mau May* Mhl *Pg Put Rs Til* Wdr.

Similar names. See *Early Scarlet Globe.*

Seedsmen's synonyms. *Cardinal Globe*, J&S Mhl Nol. *Earliest Carmine*, Bur. *Red Rocket*, Bur.

Scarlet Globe Forcing. *RE* Tat. For similar names see *Early Scarlet Globe.*

Scarlet Globe White-Tipped. Pne Wd.

Similar names. See *Early Scarlet Globe.*

Seedsmen's synonyms. *Rosy Gem*, Wdr.

Scarlet Olive-Shaped. Alx Bai Blg Bru Bur Brr Cam Cle C&B CF Cur Drr Elt Emr *RE* Ewg Fmr Ger Gls Gra Gry G&T Grw TG Ham Hen Hlm H&P RHJ J&S Lea Lnr *LB* May JMM M&S Neb Nef NI OV *Pac* Pri Pug Raw Ren Sal S&O Shm Sie S&W Tat Thm Thr Thb *Tpk* T&B Vl Vk W&D Wdr.

Similar names. Carmine Olive-Shaped, Johnson & Stokes' Scarlet Olive-Shaped, Rose Olive-Shaped, Scarlet Olive-Shaped White-Tipped, Shumway's Scarlet Olive-Shaped, Early Bright Scarlet Olive-Shaped, Deep Scarlet Olive-Shaped, Early Deep Scarlet Olive-Shaped, Early Deep Scarlet Olive-Shaped White-Tipped, Early Deep Scarlet Olive-Shaped Short-Leaved, Early Scarlet Olive-Shaped, Early Carmine Olive-Shaped, Early Scarlet Olive-Shaped Short-Leaved, Early Scarlet Olive-Shaped White-Tipped, Extra Early Scarlet Olive-Shaped, Early Carmine Olive-Shaped Forcing, Extra Early Carmine Olive-Shaped, Olive-Shaped, Early Olive-Shaped, Forcing Olive-Shaped, White-Tipped Olive-Shaped.

Seedsmen's synonyms. *Carmine Olive*, Ham. *French Breakfast*, Alx. *Improved Scarlet Globe*, Ham. *Red Rocket*, Ham. *Short Leaf*, Ham. *Startle*, Ham.

Scarlet Olive-Shaped White-Tipped. Dlw D&H *Eic* Evr *Hrm* McM Sim Stk SB Vk.

Similar names. See *Scarlet Olive-Shaped.*

Seedsmen's synonyms. *French Breakfast*, SB Stk Vk.

Scarlet Turnip. Bai Bel Brn *Cam* Cur Del Emr RE Fer Ger Gra Hrs Hrv Man Mrs Prn Pot Pug Ren Sal Thm Vin Wer Wll Wd Wdr WS.

Similar names. Early Scarlet Turnip, Early Scarlet Turnip Short Top, Early Scarlet Turnip Forcing, Extra Early Scarlet Turnip, Extra Early Scarlet Turnip Forcing, Buist's Early Scarlet Turnip, McMillan's Early Scarlet Turnip, McMillan's Extra Early Scarlet Turnip, Improved Early Scarlet Turnip, Scarlet Turnip

Forcing, Early French Scarlet Turnip, Early French Scarlet Forcing Turnip, Early Deep Scarlet Turnip, Late Deep Scarlet Turnip, Early French Deep Scarlet Turnip, Extra Early Deep Scarlet Turnip, Early Deep Scarlet Turnip Forcing, Deep Scarlet Turnip Forcing, Deep Scarlet Turnip, Hammond's Early Deep Scarlet, Early Round Deep Scarlet, Round Deep Scarlet, Early Scarlet Short Top, Lightning Scarlet Turnip. See also *Scarlet Turnip White-Tipped.*

SEEDSMEN'S SYNONYMS. *Round Red*, Hrs.

Scarlet Turnip Forcing. Mgd S&W. Tat. For similar names see *Scarlet Turnip.*

Scarlet Turnip White-Tipped. Bai Blg Bdg Brn Bru Bng Buc Brb Bur CE C&B Crs Cur Drm Eic Elt Emr Fst Fax Ger Gdn Ggy Hrn Hrv Hly Hlm H&P Iml Jac RHJ J&M J&S Jns Kos Lea Lnr Liv JL PM May JMM McM Mic Min M&S Mrs Nol OV Old Prn *Put* Por Pri Pug Roc Sal S&R Spf S&H Tat Tem Tex *Tpk* Trm *Vl* Vau Vk Wea W&D Wdr Yng.

SIMILAR NAMES. Scarlet Turnip White-Tipped Forcing, Early Scarlet Turnip White-Tipped, Early Scarlet Turnip White-Tipped Forcing, Extra Early Scarlet Turnip White-Tipped, Extra Early Scarlet Turnip White-Tipped Forcing, Early French Scarlet White-Tipped Turnip, Early French Scarlet White-Tipped Forcing Turnip, Deep Scarlet Turnip White-Tipped Forcing, Early Deep Scarlet Turnip White-Tipped, Extra Early Deep Scarlet Turnip White-Tipped Forcing, Scarlet White-Tipped, Round Scarlet White-Tipped, Deep Scarlet White-Tipped. See also *Scarlet Turnip.*

SEEDSMEN'S SYNONYMS. *Rosy Gem*, Bur Cur Ham Vk. *Ruby Pearl*, Ham. *White-Tipped Scarlet Ball*, Ham.

Scarlet Turnip White-Tipped Forcing. *Cox* Hlm S&W *Vl.*

SIMILAR NAMES. See *Scarlet Turnip White-Tipped.*

Scarlet Twenty Day Forcing. S&F. For similar names see *Twenty Day.*

Scarlet White-Tipped. GH Gra Gng Hde Shm S&W Thm.

SIMILAR NAMES. See *Scarlet Turnip White-Tipped.*

Scarlet Winter. Bur J&S.

SEEDSMEN'S SYNONYMS. *Chinese Rose Winter*, Bur.

Shepherd. Alr Ar Bgs Bui Bur CE Col Crs D&H Del D&C Evr Fst Fer Fle GN TG Ham Hst Hen H&C *Hlm* Jac J&S Lea Mls NK OV Pir Qkr Raw Rce Rs Sal Sie Vl Vk Wyg.

SIMILAR NAMES. Improved Shepherd, Leavings' Improved Shepherd, Shepherd's Chartier.

SEEDSMEN'S SYNONYMS. *Beckert's Chartier*, Bgs Hen Vk. *Chartier*, Bur CE Chl JL MV Rce, etc. *Early Mammoth*, Chl. *Improved Chartier*, Bui Col Fer Qkr. *Market*, Alr.

Shepherd's Chartier. Entered as *Chartier.*

Shumway's Cardinal, Shumway's Early Frame Forcing, Shumway's Extra Early Carmine Globe, Shumway's Golden Globe, Shumway's Long Brightest Scarlet, Shumway's Scarlet Olive-Shaped. Entered as *Cardinal, Early Frame Forcing, Extra Early Carmine Globe, Golden Globe, Long Brightest Scarlet*, and *Scarlet Olive-Shaped.*

Shumway's Market. Shm. For similar names see *Market.*

Simon's Solid Ivory Forcing. Entered as *Solid Ivory Forcing.*

Small White Summer. *CE* Rce. For similar names see *White Summer.*

Snowball. Brw Ham Liv.

SIMILAR NAMES. Hammond's Snowball.

Snow White Ice. Sal. For similar names see *Early Snow White.*

Snow White Turnip. Blg. For similar names see *Early Snow White.*

Solid Ivory Forcing. M&S.

SIMILAR NAMES. Simon's Solid Ivory Forcing.

South Jersey. *Lan.*

Startle. Frd Hrs J&S.

SEEDSMEN'S SYNONYMS. *Carmine Olive*, Ham. *Earliest Carmine*, Frd. *Early Scarlet Globe Short Top*, Hrs. *Improved Scarlet Globe*, Ham. *Red Rocket*, Frd J&S Hrs. Ham. *Scarlet Olive*, Ham. *Short Leaf*, Ham. *Twenty Day Forcing*, Frd J&S Hrs.

Striped. Ham Shm.

SEEDSMEN'S SYNONYMS. *Triumph*, Ham.

Surprise. Bkt Bri Bur Frd *Hlm* Ken Ree Til Wll.

SIMILAR NAMES. Burpee's Surprise, Early White Surprise.

SEEDSMEN'S SYNONYMS. *Golden Yellow Olive-Shaped*, J&S.

Sutton's Earliest of All Scarlet, Sutton's Rosy Gem. Entered as *Earliest of All Scarlet* and *Rosy Gem*.

Tait's Favorite Forcing. Tat. For similar names see *Faust's Favorite*.

Thorburn's Improved Half Long Black Spanish. Entered as *Half Long Black Spanish*.

Three Leaf. Lnr.

SIMILAR NAMES. Leonard's Three Leaf.

Triumph. *Alx* Brd Buc Bur Col Cox Drr Drw *Ebr Fmr* Fer GN Ggy G&T Ham Hen Hlm H&P Iow J&M *J&S Lnr Mns Mau May* Ptt Ren Sal Shw Shm Sie Sim S&H Thm *Vl* Vau Vk *Wat* W&D WS.

SIMILAR NAMES. Early Triumph, Cox's Triumph.

SEEDSMEN'S SYNONYMS. *Striped*, Ham.

Twenty Day. Dlw Old Vau.

SIMILAR NAMES. Twenty Day Express, Twenty Day Forcing, Eighteen Day Forcing, Twenty Day Forcing White-Tipped, Dallwig's Twenty Day, Vaughan's Twenty Day, Scarlet Twenty Day Forcing, Alneer's Fourteen Day, Fourteen Day.

Twenty Day Express. Chl. For similar names see *Twenty Day*.

Twenty Day Forcing. Evr Frd Hrs J&S Lnr Raw Vl.

SIMILAR NAMES. See *Twenty Day*.

SEEDSMEN'S SYNONYMS. *Earliest Carmine*, Frd. *Earliest Erfurt*, Frd. *Early Bird*, Ham. *Early Round Dark Red*, Ham. *Early Scarlet Globe Short Top*, Hrs. *Fire Ball*, Ham. *Ne Plus Ultra*, Ham Raw. *Olive-Shaped Deep Scarlet*, Old. *Red Rocket*, Frd Hrs J&S. *Startle*, Frd Hrs J&S.

Twenty Day Forcing White-Tipped. Lnr. For similar names see *Twenty Day*.

Vail's Dainty Forcing, Vail's Early Scarlet Button. Entered as *Dainty Forcing* and *Early Scarlet Button*.

Vaughan's Earliest Carmine Turnip, Vaughan's Early Scarlet Globe, Vaughan's Twenty Day. Entered as *Earliest Carmine Turnip*, *Early Scarlet Globe*, and *Twenty Day*.

Vaughan's Market. Vau. For similar names see *Market*.

Vick's All Seasons, Vick's Improved Long Scarlet Short Top. Entered as *All Seasons* and *Long Scarlet Short Top*.

Vick's Early Scarlet Globe. Brt Bkt Bel Bri Evr Hrv Hlm Rs Vk.

SIMILAR NAMES. See *Early Scarlet Globe*.

Vick's Scarlet Globe. *Blg* Brn *CE* Jns Ken Man Mau *Pg* HP Ree S&O Shm Sie *Til* Vl Wyg.

SIMILAR NAMES. See *Early Scarlet Globe*.

SEEDSMEN'S SYNONYMS. *Extra Early Scarlet Prussian*. HP.

Vick's Scarlet Globe Forcing. Y&H. For similar names see *Early Scarlet Globe*.

Wernich's Erfurt Early. Entered as *Erfurt Early*.

White Box. Bkt *Bel* Cle C&B Evr Fqr Frd Gfg G&T Grw Hrs Hrv Hlm H&P Iml Mnd Mau JMM *Mhl* Mls MV *Nol* Pri Roc Shm Sox *Vl* Wat WS Yng.

SIMILAR NAMES. Philadelphia White Box, Quaker City Early White Box, Early White Box, Felton's White Box, Felton's Improved White Box, Felton's Model White Box, Dickmann's Model White Box, Model White Box.

White Button. *Bur.*

White Chartier. Bkt Bri Brr Drr Hen J&S *Mau.*

Similar names. See *Chartier.*

Seedsmen's synonyms. *Beckert's Nonpareil,* Bkt Bri.

White Chinese. Brd Bkt Blg Bow Bgs Bng Bui Bur *CE* Cle Crs D&H RE Evr Fmr Fst G&T Hen Hlm H&P J&S Kei Lnr Liv Mgd Mns McK Min Mrs Pac Ren Rce *Rim* Sal Sie Sim SB Vl Wd.

Similar names. See *Chinese Rose Winter.*

Seedsmen's synonyms. *California Mammoth,* Blg Bow. *Celestial,* Bui Bur Hen J&S Liv JL, etc. *Chinese Mammoth,* Frd.

White Delicacy. Bkt Bui D&H Drr G&T Mhl Shw.

Similar names. See *Delicacy.*

White Dresden. Buc Roc. For similar names see *Golden Dresden.*

White English Summer. M&S. For similar names see *White Summer.*

White Giant Spanish. Ebe. For similar names see *White Spanish.*

White Globe. Fmr S&O Thm.

Similar names. White Globe Forcing, Dreer's Earliest White Globe Forcing, Large White Globe, Indianapolis White Globe, Round White, Earliest White Globe Forcing.

White Globe Forcing. Bkt. For similar names see *White Globe.*

White Hot House. M&S.

White Icicle. *Ar Btl Brr* Bur Col Dlw Ebr JMM M&S *Wat WS.*

Similar names. See *Icicle.*

White Italian Gem. M&S.

White Lady Finger. Bel Buc Dlw DD H&C Hop Iow Lan Liv Mau Mls M&S HP *Pnt* Ren Rim Roc Sal SC Sie Stw Vl.

Similar names. See *Lady Finger.*

Seedsmen's synonyms. *Long White Vienna,* DD Liv Mau SC.

White Naples. RE McK RP.

Similar names. Long White Naples.

Seedsmen's synonyms. *Hospital,* RP.

White Olive-Shaped. Brd Brt Bkt Brk Bru Cle C&B CF Cox Cur Ebe RE G&T Hrv Hen Hlm H&P Lan Lnr *LB* Liv Mnd May JMM McK MV NK OV Pri Ree Ren S&O Shm Sie Sim Spf SB S&W Tat Tem Thr *Tpk* Vl Vau Vk Wea.

Similar names. Early White Olive-Shaped, Early Extra White Olive-Shaped, Early White Olive-Shaped Forcing, Early Olive-Shaped, Forcing Olive-Shaped, White-Tipped Olive-Shaped.

Seedsmen's synonyms. *Newcome,* Ebe. *White Rocket,* Cur.

White Pearl. *Ar* Brb Dun H&C. For similar names see *Pearl.*

White Rocket. D&H Hen J&S Mgd. For similar names see *Red Rocket.*

Seedsmen's synonyms. *White Olive-Shaped,* Cur. *Earliest White Olive,* Mgd.

White Russian. Bkt Bru Ebe RE HP *Kei* Lan Tat TB.

Similar names. Large White Russian, Mammoth White Russian Winter, Long White Russian, Long White.

Seedsmen's synonyms. *California Mammoth,* Bkt Bru.

White Spanish. Ar Bdg Gra Hrv Hst Mau Pri.

Similar names. Large White Spanish, Round White Spanish, White Giant Spanish, Long White Spanish.

White Strasburg. Alr Anb Ar Bai *Bak* Brd Btl Bkt Bel Ber Blg Bow Bgs Brn Buc Bui Brb Bur Brr CE C&B Col CF Cok Cox Crs Cur DD Drr Ebe Ebr Eic Evr Fmr Fst Fer Fld Frd Ger Gls Gdn Ggy Gry G&T Grw TG Hns Ham Hrn Hrs Hrv Hst Hen Hbt H&C Hly Hlm H&P Iml Iow Jac J&M J&S Ken Kg Kos

Lam Lan Lnr LB Liv JL Loh Lon Mnd Mgd PM Mns Mau May JCM JMM Mic Mhl Mls Min MV M&S *Mrs* Mzy Neb Nol NI NK OV Old *Pac* HP JMP Pnt Ptt Poo Por Pot Pri Qkr *Rtk* Ree Ren Rce *Rim* Roc Rs Sal S&R SC S&O Sie Sox Spf Stk, SB Stw S&H S&W Tat Tem Tex TB Thr Til *Tpk* Trm T&B Vl Vk Vin Wat Wer Wll WS Wyg Y&H.

SIMILAR NAMES. Red Strasburg, Long White Strasburg, Half Long White Strasburg, Improved White Strasburg, Giant White Strasburg.

SEEDSMEN'S SYNONYMS. *Hospital*, Col Cur Crs Ebe Lan Stw, etc. *Summer Hospital*, Lnr. *White Hospital*, Vk.

White Stuttgart. CE Cle Crs Ebr Fmr GH Gry Mns MV Por S&R *Sox* Thr.

SIMILAR NAMES. Early White Stuttgart, Giant White Stuttgart, Early Giant White Stuttgart, Round White Stuttgart.

White Summer. Hde H&P Koe Lan Stw.

SIMILAR NAMES. Large White Summer, Small White Summer, Perpetual White Summer, St. Louis White Summer, White English Summer, Early White Italian Summer, White Summer Turnip, Large White Summer Turnip. See also *White Turnip.*

White Summer Turnip. *Bgg* Bdg Bri Bui C&B CF Cur Eic Hen Hly Kos Lnr *LB* May JMM M&S *Nol* OV Pir Ptt Pri Stk *Tpk* W&D Wer Wdr.

SIMILAR NAMES. See *White Summer.*

White-Tipped. Drw Hly MWJ.

SIMILAR NAMES. Rennie's White-Tipped, Extra Early White-Tipped, Early Round White-Tipped, Salzer's Blood Red Snow White-Tipped, Blood Red Snow White-Tipped.

White-Tipped Chartier. TB. For similar names see *Chartier.*

White-Tipped Olive-Shaped. RE Ken Pot.

SIMILAR NAMES. See *Scarlet Olive-Shaped, White Olive-Shaped.*

White-Tipped Rocket. D&H Hen. For similar names see *Red Rocket.*

White-Tipped Scarlet Chartier. S&W. For similar names see *Chartier.*

White Turnip. Bel Brk Bru Brr Cox *Crg* Del RE Ger Gra Ggy Gry Ham Hrv Hnt *LB* JL May Mel Mzy Pir Prn Pot Raw Ren Sal S&O Shm Sox Trm Vk Vin Wea Yng.

SIMILAR NAMES. Early White Turnip, Extra Early White Turnip, Early White Turnip Forcing, Early White Turnip Short Top, Round White Turnip. See also *White Summer.*

SEEDSMEN'S SYNONYMS. *White Box*, Ham.

White Vienna. Ar Bgs Bri Chl Cle D&H Eic RE *Gfg* G&T Grw TG Ham Hde Hbt Hly Hse J&S Lam Man McK M&S *Mrs* Nef Por Pri RP S&R Shm Sox Vl Web.

SIMILAR NAMES. Long White Vienna, Early Long White Vienna.

SEEDSMEN'S SYNONYMS. *Lady Finger*, Sox Bgs Ebe RE G&T Lam, etc.

Wonderful. Gfg *MWJ.*

SIMILAR NAMES. Wonderful Half Long Red.

Wonderful Half Long Red. MWJ Koe Lan Lea Til.

SIMILAR NAMES. See *Half Long Scarlet, Wonderful.*

Wood's Early Frame. Alr Ar Brd Brt Btl Bkt Bow *Bgg* Bri Brn Bui Bur CE Cle C&B CF *Cox* Crs Cur CA DD Drm Ebr Eic Evr Fer *Frd* GH Gra Ggy Gng TG Hns Hrn Hrs Hst Hen H&C Hlm Inl Iow J&S Jns Ken Lan Lnr *LB* Liv JL Loh May JCM JMM McK McM Min Nef NK OV Pg HP Pir Pnt Poo Pot Qkr Raw Ren Rce Roc Rt RP Sal SC S&F S&O Sim Spf SB Tem Thm Thr Til *Tpk* Vl Vau Vk Web Wd Wdr WS Wyg Yng Y&H.

SIMILAR NAMES. Wood's Long Early Frame, Wood's Frame, Early Frame, Shumway's Early Frame Forcing, Scarlet Frame, Early Frame Forcing.

SEEDSMEN'S SYNONYMS. *Early Long Scarlet*, Bow.

Wood's Frame. Fqr Ggy *Kei Pnt Spf.* For similar names see *Wood's Early Frame.*

Wood's Long Early Frame. MV Nol Ree *Sox* Thr.

Similar names. See *Wood's Early Frame.*

Yellow Globe. Brr CE Web. For similar names see *Golden Globe.*

Yellow May Duke. M&S.

Yellow Olive-Shaped. Bkt Wd WS.

Similar names. See *Golden Olive-Shaped.*

Seedsmen's synonyms. *Golden Olive-Shaped,* Wdr.

Yellow Oval-Shaped. Hen. For similar names see *Golden Olive-Shaped.*

Yellow Summer Turnip. Brd Btl Bdg Bui Bng Bur Cle CF Cur Ebe Ebr Eic Emr Fer Gdn Hns Hrn Hrv Hen Hly Hnt Kos Lnr *LB* Mud May JMM MV Mzy Neb *Nol* OV *Pnt* Pri Ree RP S&O S&F Shw Sox S&H S&W Thr *Tpk* Trm Vl Vau Vk W&D Wdr Y&H.

Similar names. See *Golden Summer Turnip.*

Seedsmen's synonyms. *Golden Perfection,* Bui. *Golden Summer Turnip,* C&B Ebr. *Golden Yellow Globe-Shaped,* Pnt.

RAMPION.

Rampion. Sim S&W Thr.

RHUBARB. (Also known as PIE PLANT.)

Rhubarb. Alx Ar Bkt Bow Bdg Bru Bur Cox Crs Drr Drm Eic Elt Evr Fqr Fst Fax Fer Fle Frd G&T Grw Hde Hrm Hrn Hrs *Hst* Hly MWJ K&F Koe Kos Lam Lan Lnr LB Liv JL Mnd Mgd Mns May JMM McK McM Mel Mhl Min MV Mzy Nef Nol NI Pir Pnt Pot Pri Rt SC Shw Shm SB Stw S&H S&W Tat Tem Thm Thr Trm W&D Wd WS.

American Undulated-Leaved. *RHJ.*

Australian Crimson Winter. *Pnt.* For similar names see *Crimson Winter.*

Champagne. Gra.

Crimson Winter. *LBk.*

Similar names. Australian Crimson Winter.

Early Linnæus. Pnt. For similar names see *Linnæus.*

Early Raspberry. Gra Pks.

Early Tender Linnæus. TB. For similar names see *Linnæus.*

Extra Early. J&S M&S.

Extra Early Paragon. *Gra.*

Giant. DD Fer Ger *Kei* Lam LB SB Tpk.

Similar names. Salzer's Giant, Myatt's Linnæus Giant, Giant Victoria, Moore & Simon's Giant Paragon, Giant Paragon.

Giant Paragon. M&S. For similar names see *Giant.*

Giant Victoria. *Bow* Trm. For similar names see *Giant, Victoria.*

Ideal Mammoth. Iow. For similar names see *Mammoth.*

Johnston's St. Martin. D&H *Kei* McK Pks Ren Sim SB.

Similar names. St. Martin.

Large Victoria. Bel Grw TG Ham Hde Hrv J&S Mls Pac Web Y&H.

Similar names. See *Victoria.*

Linnæus. Alx Alr Ar Bai Brd Btl Bkt Bel *Bow Bgg* Brk Brn Bui C&J Cle C&B Col Cox Crs Cur Del DD Drr Ebr Emr RE Fmr Fqr Fer GH *Gra* Ggy Gry Grw Hns Hde Hrm Hen H&P RHJ J&M Kra Lam Lnr LB Liv JL Loh Mnd Mau May JCM JMM Mhl MV Nol NK Pac Pir Por Pri Pug Qkr Raw Roc Sal S&R S&F Shw Sox Spf S&H S&W Tex Thm Thr Til Tpk Trm T&B *Vl* Vk Vin W&D Wer Wd WS Yng.

Similar names. Early Linnæus, Early Tender Linnæus, Myatt's Linnæus, Myatt's Linnæus Giant, Victoria Linnæus.

Lorenzo. Vin.

Mammoth. *Bow* Bui Cok Gdn Ggy Jac Kg MV *Sox* Vau.

Similar names. Ideal Mammoth, Mammoth Monarch, Mammoth Victoria, Mammoth Red.

Mammoth Monarch. Bai Pug.

Similar names. Monarch.

Mammoth Red. Cur Evr Koe. For similar names see *Mammoth.*

Mammoth Victoria. Ar HP. For similar names see *Mammoth, Victoria.*

Monarch. Del Fqr Ger GH J&M *LB* May NK OV Wll.

Similar names. Mammoth Monarch.

Moore & Simon's Giant Paragon. Entered as *Giant Paragon.*

Myatt. Hop.

Similar names. Myatt's Victoria, Myatt's Linnæus, Myatt's Linnæus Giant.

Myatt's Linnæus. Bru Frd Hrs McK Ren Ree Sim SB.

Similar names. See *Myatt, Linnæus.*

Myatt's Linnæus Giant. *CE* Hrm Ree.

Similar names. See *Myatt, Linnæus, Giant.*

Myatt's Victoria. Ar Bdg Bgs Bur *CE* CF Cox *DD* Gls Hrm Mgd Pnt Ree Rce Rt SC Tat Vk.

Similar names. See *Myatt, Victoria.*

St. Martin. Bui C&B Ewg Gra Hen Raw Vk W&D.

Similar names. Johnston's St. Martin.

Salzer's Giant. Sal. For similar names see *Giant.*

Strawberry. J&S.

Similar names. Strawberry Red.

Strawberry Red. M&S.

Similar names. Strawberry.

Victoria. Alr Bai Brd Btl Bkt *Ber* Bgg Brk Brn Bru Bui Brr C&J CE Cle C&B Crs Cur Dlw D&H Del Drr Drm Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Frd Ger GH Gra Gry Hns Hrn Hrs *Hrv* Hen H&C H&P Iow RHJ J&M *Kei* Ken Kos Kra Lam Lnr LB Liv JL Loh Mnd Mas Mau May JMM McK Mhl MV M&S Mzy Nol NK *Pac* Pks Pir Poo Por Pug Raw Ren Roe RP S&R S&F Sim Sox Spf SB S&W Tat Thr AGT Til Tpk Trm T&B *Vl* Vau Vin Wea W&D Wer Wyg Yng.

Similar names. Large Victoria, Giant Victoria, Mammoth Victoria, Myatt's Victoria, Victoria Linnæus.

Victoria Linnæus. Nef. For similar names see *Victoria, Linnæus.*

Western Market. Roc.

Wine. Bgg.

ROQUETTE.

Roquette. Eic Stk Thr.

SALSIFY. (Also called OYSTER PLANT.)

All America. Roc.

American Long White. Bui. For similar names see *Long White.*

Black Salsify. See *Scorzonera,* p. 335.

Blue-Flowered French. Bgs Wyg. For similar names see *White French.*

Breck's Improved Long White. Entered as *Long White.*

Buist's Mammoth. Bui. For similar names see *Mammoth.*

Common. Ggy Pug Sal Sox.

Similar names. Common White.

Common White. GH. For similar names see *Common.*

French. Ebr NK. For similar names see *White French.*

Giant White Russian. M&S.

Golden. JL. For similar names see *Wisconsin Golden.*

Improved French, Improved Mammoth Sandwich Island, Improved Sandwich Island, Improved Thick-Rooted, Improved Thorburn, Improved White French. Entered as *French, Mammoth Sandwich Island, Sandwich Island, Thick-Rooted, Thorburn,* and *White French.*

Large White. Bow Chl Cur Ebe Fer G&T Kos *Lnr* LB Loh PM Mns Pg Pks Roc Wer.

Similar names. See *Long White.*

Long French. Lan. For similar names see *White French.*

Long Smooth White. *Bgg* Wll. For similar names see *Long White.*

Long White. Anb Ar Brk Bdg Bru Buc Bur Del Drr Elt RE Evr Fmr Fst Fax Ger Grw TG Hrv J&M J&S *Kei* Lam JL Mau May *McK* Mhl M&S Neb OV Por Pot Pri Ren S&R Shm *Spf* S&H Thm Til *Tpk* Vau Yng *Y&H.*

Similar names. Breck's Improved Long White, American Long White, Long Smooth White, Large White.

Long White French. Alr Brr CA DD Ewg Fqr GH Gra Gry Hrm H&P K&W Lea Mnd JCM JMM MV Mzy Ptt Ree RP *Sox* Thr *Vl* Wea Web W&D.

Similar names. See *White French.*

McMillan's Mammoth White. McM. For similar names see *Mammoth.*

Mammoth. Anb Cok Drm Gdn GN Liv.

Similar names. Buist's Mammoth, Mammoth White, McMillan's Mammoth White.

Seedsmen's synonyms. *Sandwich Island,* Liv.

Mammoth Sandwich Island. Alx Alr Ar Bai Brd Brt Btl Bkt Bel Ber Bow Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Bur Brr C&J CE Chl Cle Col Cox Crs Cur CA D&H Del DD Drr Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fer Fld Fle Frd Gls GH Gra Gng Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Haw Hen H&C Hly Hlm Hop Hse H&P Iml Iow Jer MWJ J&M J&S Jns Ken Kg Kos Kra Lam Lea Lnr LB Liv JL Loh Lon Mnd Mgd Man PM Mns Mas Mau May JCM JMM *McK* Mic Mhl Mls MV M&S Mrs Mzy Neb Nef Nol OV Old Pac Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pri Pug Qkr Raw Ree Ren Rce Roc Rs RP S&R SC S&F Shw S&O Shm Sie Sim Sox Spf S&H S&W Tat Tex Thr TB Thm *Tlh* Til *Tpk* Trm T&B *Vl* Vau Vk Vin Wat Wea Web W&D Wer Wlt Wd Wdr WS Wyg Yng.

Similar names. See *Sandwich Island.*

Mammoth White. Cam CF Hst Shw. For similar names see *Mammoth.*

Moore's Giant White Russian. Entered as *Giant White Russian.*

Ordinary French. Lan Stw. For similar names see *White French.*

Salzer's Early. Sal.

Salzer's Giant. Sal.

Sandwich Island. Bak Brb Cam CF Crg Dlw Drw Eas Fst Ger Gdn Gfg Jac Koe Lan *Man* McM Mel NK Pot Rim Sal Stk Stw Tem Wll.

Similar names. Improved Sandwich Island, Mammoth Sandwich Island, Improved Mammoth Sandwich Island, Sandwich Mammoth White.

Seedsmen's synonyms. *Mammoth,* Liv.

Sandwich Mammoth White. Blg. For similar names see *Sandwich Island.*

Spanish Salsify. See *Scolymus,* p. 335.

Thick-Rooted. Shw.

Similar names. Thorburn's Improved Thick-Rooted.

Thorburn. Ebr.

Similar names. Improved Thorburn.

Thorburn's Improved Thick-Rooted. Entered as *Thorburn's Thick-Rooted.*

Thorburn's Thick-Rooted. Thr. For similar names see *Thick-Rooted.*

White French. Bai Bel Brn CE Emr Gls Hen Hly Jns Lnr JMP Ree S&F Tat TB Vk.

Similar names. Long White French, Improved White French, Improved French, Ordinary French, Long French, Blue-Flowered French, French.

Wisconsin Golden. Col Ggy Iow Liv Mau NK Tem.

Similar names. Golden.

SCOLYMUS. (Also known as SPANISH SALSIFY.)

Scolymus. Bdg Mnd Thr.

SCORZONERA. (Also called BLACK SALSIFY.)

Scorzonera. Bdg Cur Dlw DD Drr Elt Ewg Fmr Frd Gra Hen Kei K&F Kos Lan Lnr Liv Mnd Mzy Neb Pnt Pri Ren Sal Sim S&W Tat Thr Vau Vk W&D Wer.

SKIRRET.

Skirret. Bdg Kei Mnd Thr

SORREL.

Sorrel. Bow Cle Dlw DD Ebe Eic Fmr Fqr Fst Gry Hns Hrv J&S Kei Mau Pks Pri S&F Sim Spf Stk.

Broad-Leaved. Btl Brk C&B Cur *Eic* Ewg Gra Hen Mzy SC W&D Wer.

Broad-Leaved French. Bur Lnr Liv Mhl Vau Vin Yng.

Broad-Leaved French Belleville. Mnd.

French. Col Emr Lan Vk.

Garden. MV HP Pnt *Sox* S&W.

Garden Patience Dock. Bdg.

Large-Leaved. Bdg Buc Drr M&S Pot.

Large-Leaved French. Crs Ebe Elt Fer Ger Lnr M&S Nol Thr Vin W&D.

Mammoth Lyons. Thr.

SPINACH.

All Seasons. GN.

American Curled Savoy Leaved. Btl Bui GH.

Similar names. See *American Savoy Leaved.*

American Round-Seeded Savoy Leaved. J&S M&S Nol.

Similar names. See *American Savoy Leaved.*

Seedsmen's synonyms. *Bloomsdale*, J&S M&S Nol.

American Savoy Leaved. Chl Fst Haw.

Similar names. American Curled Savoy Leaved, American Round-Seeded Savoy Leaved.

Seedsmen's synonyms. *Norfolk Savoy Leaved*, Fst.

Aragon. *Hst.*

Arlington Pointed-Leaved. Raw S&F.

Beckert's Hardy Winter. Entered as *Hardy Winter.*

Belgium Evergreen. M&S *Nol.* For similar names see *Evergreen.*

Seedsmen's synonyms. *Viroflay Long-Standing*, M&S.

Bloomsdale. Brd Bou Brk Bgs Bri Brn Bng Cam Crs Dlw Del Drm *Ebe* Emr Evr Fqr Fst Frd Gdn Ggy Gfg G&T Grw TG Ham Hrm Hrn Hst Hly Hlm Iow Jac MWJ J&S Jns K&F Kra Lan Mgd Man *Mau* McK McM Mic MV M&S Nef Nol

NK Pac Poo Por Pot Ren Rim S&R S&O *Sox* Spf Stw Tex Thr *Tlh Vt* Vau Vk Vin Wea Web Wer Wll Wd WS.

Similar names. Faust's Bloomsdale, Hammond's Improved Bloomsdale, Bloomsdale Savoy, Improved Bloomsdale Savoy, Bloomsdale Curled Savoy, Bloomsdale Large Curled Savoy, Bloomsdale Round-Seeded Savoy, Bloomsdale Curled, Bloomsdale Extra Curled.

Seedsmen's synonyms. *American Round-Seeded Savoy*, J&S M&S Nol. *Curled-Leaved Savoy*, Emr Liv McK MV Liv Thr, etc. *Curled Savoy*, Grw G&T. *Large Savoy*, Bng. *Norfolk*, Bdg Liv JL HP Vk. *Norfolk Savoy Leaved*, Bur Hrs Nef Ptt JMP HP Wd. *Round Savoy Leaved*, Lan. *Savoy Leaved*, Brd Brk Fqr Raw Spf Vau, etc.

Bloomsdale Curled. May OV *Tpk* Vl. For similar names see *Bloomsdale.*

Bloomsdale Curled Savoy. Blg Bui Hde Mns Neb Pnt SC Wlt Yng.

Similar names. See *Bloomsdale.*

Bloomsdale Extra Curled. *Cam* Gng Rt. For similar names see *Bloomsdale.*

Bloomsdale Large Curled Savoy. Sim. For similar names see *Bloomsdale.*

Bloomsdale Round-Seeded Savoy. Mhl. For similar names see *Bloomsdale.*

Bloomsdale Savoy. Alx Alr Ar Brt *Bel Bgg* Brr CE Cle Cox Crg Cur CA Ebr Eic Elt RE Fmr GH Hrv H&C H&P J&M Kg Koe Kos Lea *Man* PM JCM JMM Mrs HP *Pnt* Rce Roc Shm Sie Sox SB S&W Thm Trm *Vl* Wat W&D.

Similar names. See *Bloomsdale.*

Broad-Leaved. RP Web.

Broad-Leaved Batavian. Lam.

Broad-Leaved Flanders. Alx Bui *CE* Cle Eic Fer Gdn GH Hst Jac Kei *Lnr* Neb Rce Stk Vin.

Similar names. See *Flanders.*

Broad Round-Leaved Summer. Buc Fer Iml Lam Pg Roc.

Similar names. See *Round-Leaved, Summer.*

Buckbee's Long-Standing. Entered as *Long-Standing.*

Buist's Perfection Curled Savoy. Bui. For similar names see *Perfection Curled.*

Carter's Market Garden. Kei.

Catillon Long-Standing. Bru D&H. For similar names see *Long-Standing.*

Curled Prickly-Seeded. Lan Stw. For similar names see *Prickly-Seeded.*

Curled Savoy Leaved. Anb C&B DD *Ebe* Emr G&T Grw TG Liv McK MV HP Shw *Sox* Tat Thr Vin Wea.

Similar names. See *Savoy Leaved.*

Seedsmen's synonyms. *Bloomsdale*, DD Emr Liv McK HP Vin, etc. *Norfolk*, Liv HP.

Dreer's Round-Seeded Savoy Leaved. Drr. For similar names see *Savoy Leaved.*

Dutch Round-Leaved. Brr. For similar names see *Round-Leaved.*

Early Giant Crumpled Leaf. Gra *TG Rce.*

Similar names. See *Giant Crumpled Leaf.*

Early Giant Round-Leaved. Brt. For similar names see *Round-Leaved.*

Early Giant Thick-Leaved. *CE* Fer Gls *TG* J&S Rce.

Similar names. See *Thick-Leaved.*

Enkhuizen Long-Standing. Bui Fst GH J&S *S&R.*

Similar names. See *Long-Standing.*

Evergreen. C&J.

Similar names. Long-Standing Evergreen, Belgium Evergreen.

Seedsmen's synonyms. *Long-Standing*, C&J.

Everlasting. *Man.*

Ever Ready. MWJ Lan *JMM* Stw.

Extra Curled Savoy Leaved. *Cam* G&T. For similar names see *Savoy Leaved.*

Extra Large-Leaved. Sim.

Seedsmen's synonyms. *Giant Flanders*, Sim.

Extra Large Round-Leaved. Ggy Kra OV Old Vau.

Similar names. See *Round-Leaved.*

Extra Large Round Thick-Leaved. Ken Lnr HP.

Similar names. See *Thick-Leaved.*

Extra Large Savoy Leaved. *Eic* Stk. For similar names see *Savoy Leaved.*

Fall. Bel Bru Elt Ger H&P Iml K&W Lea JMM Mhl Neb Pnt Ptt Por Raw S&R Sim SB *Vl* Vk.

Seedsmen's synonyms. *Prickly-Seeded*, Bru Iml JMM Mhl Por S&R, etc.

Faust's Bloomsdale. Entered as *Bloomsdale.*

Flanders. Ren SB.

Similar names. Long-Standing Flanders, Broad-Leaved Flanders, Round-Leaved Flanders, Large-Leaved Flanders, Giant Flanders.

Seedsmen's synonyms. *Long-Standing*, Pnt.

Giant. Crs Wdr. For similar names see *Giant Crumpled Leaf.*

Giant Crumpled Leaf. Y&H.

Similar names. Early Giant Crumpled Leaf, Mette's Crumpled Leaf, Giant.

Giant Flanders. Sim. For similar names see *Flanders.*

Seedsmen's synonyms. *Extra Large-Leaved*, Sim.

Giant Norfolk Thick Savoy Leaved. M&S.

Similar names. See *Norfolk Savoy Leaved.*

Giant Thick-Leaved. Brr D&H *Ggy* Ptt. For similar names see *Thick-Leaved.*

Seedsmen's synonyms. *Round Viroflay*, Ptt.

Giant Viroflay. Dlw. For similar names see *Viroflay.*

Seedsmen's synonyms. *Monstrous Viroflay*, Wdr.

Goliath. *Gra.*

Griffith & Turner's Extra Curled Savoy Leaved. Entered as *Extra Curled Savoy Leaved.*

Hammond's Improved Bloomsdale. Entered as *Bloomsdale.*

Hardy Winter. Bkt Bri Hen. For similar names see *Winter.*

Hastings' Aragon. Entered as *Aragon.*

Henderson's Norfolk Savoy Leaved, Henderson's Thick-Leaved. Entered as *Norfolk Savoy Leaved* and *Thick-Leaved.*

Holland. Bdg.

Seedsmen's synonyms. *French*, Bdg. *Mountain Spinach*, Bdg. *Orach*, Bdg.

Improved Bloomsdale Savoy, Improved Large Round-Leaved, Improved Long-Standing Curled, Improved Thick-Leaved, Improved Victoria Round-Leaved. Entered as *Bloomsdale Savoy*, *Large Round-Leaved*, etc.

Italian Mammoth. *Nol.*

Landreth. DD.

Large-Leaved Flanders. Dlw Lan Min Stw. For similar names see *Flanders.*

Large-Leaved Viroflay. Bdg CF Frd GH Lnr Mzy Rce Sox Tat AGT.

Similar names. See *Viroflay.*

Large Prickly-Seeded. Bow Pac. For similar names see *Prickly-Seeded.*

Large Round-Leaved. Ptt. For similar names see *Round-Leaved.*

Large Round-Leaved Viroflay. Btl C&B Cox G&T Hen Mas Poo Vk Vin.

Similar names. See *Viroflay.*

Large Round Thick-Leaved. Bri. For similar names see *Thick-Leaved.*

Seedsmen's synonyms. *Large Viroflay*, Bdg.

Large Savoy Leaved. Bng. For similar names see *Savoy Leaved.*

Seedsmen's synonyms. *Bloomsdale*, Bng.

Large Thick-Leaved. GH H&C Mgd S&W W&D.

Similar names. See *Thick-Leaved.*

Large Thick-Leaved Viroflay. TG Hrs W&D. For similar names see *Viroflay.*

Large Viroflay. Bdg *CE* Tat. For similar names see *Viroflay.*

Seedsmen's synonyms. *Improved Thick-Leaved,* Frd. *Large Thick-Leaved Round,* Bdg.

Lettuce-Leaved. Ewg Mnd MV *Ree Sox* Thr.

Long-Standing. Alr Anb Ar Bai Brd Btl Blg Bow Bgg Brk Bdg Bgs Bng Buc Brb Bur Brw C&J Cam Cle C&B Col CF Cok Crs Cur *CA* Dlw Del DD Drw Dun Ebe Ebr Elt Emr Evr Ewg Fmr Fqr Fer Frd Ger *Gls* GH Gra Gng Ggy Gry G&T Grw TG Hns Hrm Hrs Hrv Hst Hen Hbt H&C Hly Hlm Hnt H&P Iml Iow MWJ RHJ J&M *Jns* K&W Ken Kg Kos Kra Lam Lnr LB Liv JL Mnd Mgd Man PM Mns Mas Mau May JMM McM Mic Mls Min Neb NI NK OV Pg HP Pir Prn Pne *Pnt* Ptt Poo Por Pot Pri Pug Qkr Raw Ren Roc Rs RP Sal S&R SC S&F Shw Sim Spf SB S&H S&W Tat Tem Thm Thr Thb Til *Tpk* Trm Vl Vau Vk Wat Wea Web W&D Wer Wll Wd Wdr WS Yng Y&H.

Similar names. Buckbee's Long-Standing, Catillon Long-Standing, Enkhuizen Long-Standing, Parisian Long-Standing, Long-Standing Round-Seeded, Long-Standing Round-Leaved, Long-Standing Summer, Improved Long-Standing Curled, Prickly-Seeded Long-Standing.

Seedsmen's synonyms. *Enkhuizen,* Blg Fst. *Evergreen,* C&J. *Flanders,* Pnt. *Improved Thick-Leaved,* Iml Vk. *Thick-Leaved Round,* Thr.

Long-Standing Evergreen. Brr Cur Vl. For similar names see *Evergreen.*

Long-Standing Flanders. Pnt. For similar names see *Flanders.*

Long-Standing Round-Leaved. Mzy. For similar names see *Long-Standing.*

Long-Standing Round-Seeded. Drr Lan Mhl.

Similar names. See *Long-Standing.*

Long-Standing Round Thick-Leaved. Hop MV *Sox.*

Similar names. See *Thick-Leaved.*

Long-Standing Summer. Pac. For similar names see *Long-Standing, Summer.*

Long-Standing Thick-Leaved. Brt Bkt Bel Bri *CE* Loh JCM Ree Ree S&O Sie Sox.

Similar names. See *Thick-Leaved.*

Long-Standing Viroflay. M&S. For similar names see *Viroflay.*

Seedsmen's synonyms. *Belgium Evergreen,* M&S.

May's Perfection Curled. May. For similar names see *Perfection Curled.*

Mette's Crumpled Leaf. Brr. For similar names see *Giant Crumpled Leaf.*

Monstrous Round-Leaved Viroflay. RE SB. For similar names see *Viroflay.*

Monstrous Viroflay. Bgs Bru Bui RE Hns RHJ Min Por Qkr Ren Roe S&R Shm Til Vau Wdr.

Similar names. See *Viroflay.*

Seedsmen's synonyms. *Giant Viroflay,* Wdr. *Thick-Leaved,* Bui.

New Zealand. Bai Btl Bkt Brk Bdg Bru Bur *CE* Chl Cle Cox Cur DD Drr Dun Elt Emr *Err* Fmr Fqr Frd Ger Ggy Gry Hns Hst Hen Hbt H&C Hly Iow J&S Kei Ken Liv Mnd Mau *May* Mhl M&S Mzy Pks Prn Pnt Pot Qkr Raw Ree Ren Rce SC S&F Sim S&W Tat Thr Vau Vk Wea W&D Wer.

Seedsmen's synonyms. *Orach,* RHJ. *Tetragonia,* Frd.

Norfolk Curled Savoy Leaved. Hst. For similar names see *Norfolk Savoy Leaved.*

Norfolk Savoy Leaved. Bkt Bdg Bri Bui Bur Cam Cox Fst Hrs Hen *JMM* M&S Nef *Nol* JMP Pir Ptt T&B *Vau* Wd Wdr WS.

Similar names. Henderson's Norfolk Savoy Leaved, Norfolk Curled Savoy Leaved, Giant Norfolk Thick Savoy Leaved.

Seedsmen's synonyms. *American Savoy Leaved,* Fst. *Bloomsdale,* Bur Hrs Nef JMP Ptt Wd.

Parisian Long-Standing. J&S M&S Nol. For similar names see *Long-Standing.*

Perennial. Sim.

Perfection Curled. Cam Gdn Jac.

Similar names. May's Perfection Curled, Buist's Perfection Curled Savoy, Shumway's Perfection.

Philadelphia. Nol.

Prickly-Seeded. Bai Brt Bel Bgg Brk Bdg Bgs Bru Bui Bur Brr CE Cle Cox Crs Cur DD Drr Eas Ebe Ebr Elt Emr RE Ewg Fmr Fqr Fst Ger GH Ggy Gry Grw TG Hrm Hrs Hly Hop H&P Iml Iow MWJ RHJ J&M Kei K&W Kg Kos Lea Lnr Liv Mnd Man May JCM JMM Mhl Min MV Mrs Mzy Neb Nef NK HP Pnt Ptt Por Pot Pri Raw Ren Ree Roe RP S&R SC Sim Sox SB S&H Tat Thm Thr Trm T&B Vl Vau Vk Vin W&D Wer.

Similar names. Prickly-Seeded Winter, Large Prickly-Seeded, Curled Prickly-Seeded, Prickly-Seeded Viroflay, Prickly-Seeded Long-Standing.

Seedsmen's synonyms. *Fall*, Bru H&P Pnt Ptt Raw Sim, etc. *Winter*, Brk Brr Cox Iow Trm Thr, etc.

Prickly-Seeded Long-Standing. Brt Bkt Bur Cur Fer GH *Lam* Lan *Lur* LB Loh Neb Pks Ree Roe Stw Vl.

Similar names. See *Prickly-Seeded, Long-Standing.*

Prickly-Seeded Viroflay. Wea. For similar names see *Prickly-Seeded, Viroflay.*

Prickly-Seeded Winter. Btl Fer *Frd* Hlm Jns Koe Lam *Lur* LB JL Poo Sal Vl Web.

Similar names. See *Prickly-Seeded, Winter.*

Rawson's Round Thick-Leaved. Raw. For similar names see *Thick-Leaved.*

Round-Leaved. Alr Bel Bgg Bdg Bgs Brr *CE* Cle C&B Crs Cur Drw Eas Ebr Ewg Ger GH Ggy TG Hrs Hrv Hen H&C Hop Kei Kos JL Mnd Man Mau May JMM OV Pir Prn Pri Ren Rce RP Shm Sim S&H S&W Tat TB *Tpk* Vk Web W&D Wer.

Similar names. Savoy Round-Leaved, Early Giant Round-Leaved, Broad Round-Leaved Summer, Thick Round-Leaved Summer, Improved Large Round-Leaved, Extra Large Round-Leaved, Dutch Round-Leaved, Large Round-Leaved.

Seedsmen's synonyms. *Summer*, Cle Crs Ger Hrs Hrv Vk, etc.

Round-Leaved Flanders. Mzy Tat Thr. For similar names see *Flanders.*

Round-Leaved Summer. Anb Bow Drm Hns J&M *Lur* LB Liv Loh *McK* Min Pac Pks Pug Sal Thm Tpk.

Similar names. See *Summer.*

Round-Leaved Viroflay. Brk Cur Ebe Mnd Ptt Thr.

Similar names. See *Viroflay.*

Seedsmen's synonyms. *Giant Thick-Leaved*, Ptt.

Round Thick-Leaved. Bai Brd Bng Bur *CE* Cle CF Cox Cur Dlw DD Elt Emr Evr Fmr Fqr Fst Fax *Gls* Ggy Hrm Hrn Hlm Kei K&F *Man* JCM Mls Neb JMP Pnt Pot Ree Rce Rs S&F S&O Sox Spf Thr Til Trm T&B Vl Wea Wer Wd Wdr WS Wyg Yng Y&H.

Similar names. See *Thick-Leaved.*

Seedsmen's synonyms. *Long-Standing*, Thr.

Round Thick-Leaved Summer. *RE* Frd Gng J&M SC SB.

Similar names. See *Thick-Leaved, Summer.*

Round Thick-Leaved Viroflay. Thr. For similar names see *Viroflay.*

Salzer's Savoy Leaved. Sal. For similar names see *Savoy Leaved.*

Savoy Leaved. Bai Bak Brd Bow Bgg Brk Bdg CF Crs Dlw Emr Ewg Fqr Fer Frd Gls Gry Hns Hrm Hrn Hly Kei K&W Kra Lam Lnr LB JL Loh Mgd Mzy NK Pac Prn Pri Pug Raw Ren Rs Spf Til Tpk Vau Vk Wer Wll Wyg.

Similar names. Curled Savoy Leaved, Tait's Improved Curled Savoy Leaved, Griffith & Turner Co.'s Extra Curled Savoy Leaved, Large Savoy Leaved, Extra

Large Savoy Leaved, Salzer's Savoy Leaved, Dreer's Round-Seeded Savoy Leaved, Extra Curled Savoy Leaved.

Seedsmen's synonyms. *Bloomsdale*, Brk Brd Fqr Hrm JL Mgd, etc. *Norfolk*, Bdg JL Vk.

Savoy Round-Leaved. Bgs Bui Drr MWJ Lan Stw.

Similar names. See *Round-Leaved.*

Seedsmen's synonyms. *Bloomsdale*, Lan.

Shumway's Perfection. Shm. For similar names see *Perfection Curled.*

Summer. Bel Brr Cle Crs Ger Hrs Hrv Kei Man *McK* Ren Sim Vk.

Similar names. Round-Leaved Summer, Thick-Leaved Summer, Long-Standing Summer, Round Thick-Leaved Summer, Broad Round-Leaved Summer, Thick Round-Leaved Summer.

Seedsmen's synonyms. *Round-Leaved*, Cle Crs Ger Hrv Kei Vk, etc.

Tait's Improved Curled Savoy Leaved. Entered as *Curled Savoy Leaved.*

Tetragonia. Frd.

Seedsmen's synonyms. *New Zealand*, Frd.

Thick-Leaved. Anb Ber Bow Bgs Bui C&B DD Dun Fer Frd Hen Hlm Iml J&M J&S Jns K&W *Lam Lnr* LB Liv JL Loh Mns Mas Mel Nol NI Pks Roc Thm Thb Vk.

Similar names. Improved Thick-Leaved, Henderson's Thick-Leaved, Rawson's Round Thick-Leaved, Round Thick-Leaved, Round Thick-Leaved Summer, Large Round Thick-Leaved, Extra Large Round Thick-Leaved, Long-Standing Round Thick-Leaved, Long-Standing Thick-Leaved, Large Thick-Leaved, Giant Thick-Leaved, Early Giant Thick-Leaved.

Seedsmen's synonyms. *Large Viroflay*, Frd. *Long-Standing*, Iml Vk. *Niroely*, Anb. *Viroflay*, DD J&M J&S Liv Mns Nol, etc. *Monstrous Viroflay*, Bui.

Thick-Leaved Summer. *Bel* Brn. For similar names see *Summer.*

Thick-Leaved Viroflay. Brr C&J Crs Elt Pir *Sox.*

Similar names. See *Viroflay.*

Thick Round-Leaved Summer. Frd Gng SC Sb.

Similar names. See *Round-Leaved, Summer.*

Vaughan's Norfolk Savoy. Entered as *Norfolk Savoy.*

Victoria. Btl Bkt Blg Bow *Bgg* Brk Bdg Bri Buc Bui Bur Brr C&J C&B Col CF Cur Dlw D&H D&C Drr Ebe Ebr Emr RE Fqr Fer Fle *Frd* Gls Gng Ggy Gfg G&T TG Ham Hrn Hrs Hrv Hen Hbt H&C Hlm Hop Hse Iml Iow Jer *MWJ* J&S *Jns* Ken Kos Lam Lan Lnr Liv Mgd Mns Mau May JMM McK Mzy Nol OV Pg *HP* Pne Pnt Ptt Poo Pri Qkr Raw Ren Rce Roc Sal S&F Shw *Shm* Sie Spf SB S&W Thr *Tpk* Vau Vk Wat Wea W&D Wdr *WS* Yng.

Similar names. Victoria Long-Standing, Victoria Round-Leaved Long-Standing, Improved Victoria Round-Leaved, Victoria Round-Leaved.

Victoria Long-Standing. Brn Crs Mhl M&S. For similar names see *Victoria.*

Victoria Round-Leaved. Gra. For similar names see *Victoria.*

Victoria Round-Leaved Long-Standing. Ham. For similar names see *Victoria.*

Viroflay. Bai Bkt Cle Ewg *Gls* Gra J&S Lan JL Man May MV NK OV RP S&O Thm *Tpk* Web.

Similar names. Large-Leaved Viroflay, Long-Standing Viroflay, Prickly-Seeded Viroflay, Giant Viroflay, Monstrous Viroflay, Round-Leaved Viroflay, Large Round-Leaved Viroflay, Monstrous Round-Leaved Viroflay, Thick-Leaved Viroflay, Large Thick-Leaved Viroflay, Round Thick-Leaved Viroflay.

Seedsmen's synonyms. *Improved Thick-Leaved*, DD J&M J&S Liv Mns. *Thick-Leaved*, JL Thm.

Winter. Brt Brk Bgs Bur Brr *CE* Cle Cox Crs *Ebe RE* Fmr Fst GH TG Hrm Hrs Hly Iow Kei Kg Man Nef Ren Rce Roc Thr Trm T&B Vin Y&H.

Similar names. Hardy Winter, Beckert's Hardy Winter, Prickly Winter.

Seedsmen's synonyms. *Prickly-Seeded*, Brt Bur Cox Hrm Hrs Iow, etc.

SQUASH.

Acorn. Ewg Gra.

Alexandria. *Iow.*

American Turban. Alr Bow Brk CE Cle Cox DD Drr Eas Emr Fqr GH Ggy Gry TG Hrm Haw Ken Lam Liv JL Man May JCM Min Por Pot Raw Ree Rob RF S&R S&F S&O Sox Tpk Vin Y&H.

Similar names. See *Turban.*

Seedsmen's synonyms. *Essex Hybrid,* DD Drr Lam Por RP S&R Sox, etc. *Turk's Cap,* Raw. *Warren,* Drr.

Arlington Summer Crookneck. Raw. For similar names see *Summer Crookneck.*

Arlington White Bush Scalloped. Raw.

Similar names. See *White Bush Scalloped.*

Autumnal Boston Marrow. SC. For similar names see *Boston Marrow.*

Autumnal Marrow. Grw.

Similar names. Colvin's Autumnal Marrow, Autumnal Boston Marrow.

Seedsmen's synonyms. *Boston Marrow,* Grw.

Banana. CE.

Similar names. Mexican Banana, Shumway's Mexican Banana.

Bay State. Brt *Bgg* Brk Brn Buc *CE* Cle CF Cur Drr Emr Fmr Fqr Fax Frd Gra Ggy Gry TG Kos Lnr May MV M&S Pri Raw Ree Rob Roc Rs Sal S&F Sim *Sox* Thr Vk W&D Wer Wyg.

Similar names. Low's Bay State.

Black Michigan. Brw.

Seedsmen's synonyms. *Long Green,* Brw.

Blue Hubbard. *Buc* Iow. For similar names see *Hubbard.*

Seedsmen's synonyms. *Marblehead,* Iow.

Boston Marrow. Alr Anb Ar Bai Bak Brd Btl Bkt Blg Bou Bow Bgg Brk Bdg Bgs Bri Bru Bng Buc Bui Brb Bur Brr Brw C&J Cam CE Cle C&B CF Cox Crs Cur CA Dlw Del DD Drr Drw Dun Ebe Ebr *Eic* Elt Emr RE Ewg Fmr Fqr Fst Fax Fer Frd Ger Gls Gdn GH Gra Gng Ggy Gry Gfg G&T Grw TG Hns Ham Hde Hrm Hrs Hrv Hst Hen Hlm Hop H&P Iml Jer *MWJ* RHJ J&M J&S Jns *Kei* K&W Ken Kos Kra Lam Lea Lnr LB Liv JL Loh Lon Mnd Man PM Mns Mas Mau May JCM JMM McK Mic Mhl Mls Min MV M&S Mzy Neb Nef Nol NI Pac Pg Pks HP Pir Prn Pne Ptt Poo Pot Pri Pug Raw Ree Ren Ree Rob Roc Rs RP Sal S&F Shw S&O Shm Sie Sim Sox Spf Stk SB S&W Tat Tem Tex Thm Thr Thb Til Tpk Trm T&B *Vl* Vau Vk Vin Wat Wea Web W&D Wer Wll Wd Wdr WS Wyg Yng Y&H.

Similar names. Holmes' Boston Marrow, Autumnal Boston Marrow, Improved Boston Marrow, Large Boston Marrow.

Seedsmen's synonyms. *Autumnal Marrow,* Grw. *Vegetable Marrow,* Bow.

Brazil Sugar. *Bgg* Bur *CE* Fst Mau Ree Tem.

Similar names. See *Faxon's Brazilian.*

Buckbee's Giant Summer Crookneck, Buckbee's Improved Hubbard, Buckbee's Mammoth White Bush Scalloped, Buckbee's Mammoth Yellow Bush Scalloped. Entered as *Giant Summer Crookneck, Hubbard, Mammoth White Bush Scalloped,* and *Mammoth Yellow Bush Scalloped.*

Buist's Improved Marrow. Entered as *Buist's Marrow.*

Buist's Marrow. Bui.

Similar names. Buist's Improved Marrow.

Burpee's Bush Fordhook, Burpee's Fordhook. Entered as *Bush Fordhook* and *Fordhook.*

Bush Fordhook. Bur. For similar names see *Fordhook.*

Butman. Bkt Bgg Bui Brr C&J *CE* Cle CF Cox Crs Ebe Emr Frd Ggy Gry Lnr May Mhl *Mls* Mzy Neb Pir Prn Pri Ren Ree Rob Rs Shm Y&H.

Similar names. Gregory's Butman.

California Field. *Pac* T&B.

Similar names. California Field Marrow.

California Field Marrow. Bai. For similar names see *California Field.*

Canada Winter Crookneck. *Bgg* Brk Bgs Cle DD Ebe Emr Fmr Fqr Fax GH Ggy Gry Liv May MV Mzy NK OV Qkr Rce Rob S&F *Sox* Tat Thr *Tpk.*

Similar names. See *Summer Crookneck.*

Chicago Orange Marrow. GH Old Vau. For similar names see *Orange Marrow.*

Seedsmen's synonyms. *Early Marrow,* Frd. *Early Prolific Marrow,* Frd. *Extra Early Marrow,* Frd. *Dunlap's Early Prolific Marrow,* Frd.

Chicago Warted Hubbard. Alr Brd Brt Ber Blg Bri Brn Buc Bui Bur Brr CF Cur D&H *Dun* Fmr Fqr Frd *Gra* TG Ham *Hrm* Hrn Hbt Iml J&S Jns Kg Kra *LB* Liv Mgd Mau *May McK* M&S Neb Nol Old Pg Pir Pnt Qkr Ren Rob Roc Rs Shm Sie Sim Spf Tem Trm Vl Vau Vk Y&H.

Similar names. See *Hubbard.*

Chile. Sal. For similar names see *Chile.*

Chilean Giant. Buc Roc. For similar names see *Mammoth Chile.*

Chinese. M&S.

Similar names. Red China.

Cocoanut. *Bgg* Buc Brr *CE* Cle Emr Ggy Ptt Rce Rob Tem Thr Vin.

Similar names. Small Cocoanut, French Cocoanut.

Seedsmen's synonyms. *Pineapple,* Vin.

Cocozelle. Bng Buc Bur Fst Koe Mau Ptt Roc Thr W&D.

Seedsmen's synonyms. *Long Snow White Summer,* Koe.

Columbian. Vin.

Colvin's Autumnal Marrow. Shm. For similar names see *Autumnal Marrow.*

Colvin's Orange Marrow. *CE* Lnr Liv Rce Tem.

Similar names. See *Orange Marrow.*

Cream-Colored Summer Crookneck. Jer.

Similar names. See *Summer Crookneck.*

Cream Vegetable Marrow. Kei Pri. For similar names see *Vegetable Marrow.*

Cushaw. Fld Liv JL M&S NI Rob Shw Wyg.

Similar names. Livingston's Cushaw, Improved Cushaw, Livingston's Improved Cushaw.

Seedsmen's synonyms. *Large Winter Crookneck,* Pnt. *Crookneck,* JL.

Delicata. Bel Brk Buc Bur Cox Cur Fqr Frd GH Gra Hen *MWJ Kg* Lnr May M&S *Nol* NK Pne Ptt Raw Ree Rce Roc S&F Shw Shm Sim Thr Vau Vk W&D *Wer.*

Similar names. Henderson's Delicata.

Der Wing. Buc Bur Hop Mau Roc Thr.

Dow's Extra Early Pattypan, Dow's Extra Early White Bush Scalloped. Entered as *Extra Early Pattypan* and *Extra White Bush Scalloped.*

Dunlap's Early Marrow. Pne. For similar names see *Prolific Marrow.*

Dunlap's Early Prolific Marrow. Ggy M&S Sal.

Similar names. See *Prolific Marrow.*

Seedsmen's synonyms. *Chicago Orange Marrow,* Frd. *Early Marrow,* Frd. *Early Prolific Marrow,* Frd. *Extra Early Marrow,* Frd.

Dunlap's Prolific Marrow. Brt *CE* Grw TG Ree.

Similar names. See *Prolific Marrow.*

Earliest Prolific. Wd WS. For similar names see *Prolific Marrow.*

Early Bush Scalloped. Anb Chl Cox Eic Hns Hrs NI JMP Stk.

Similar names. See *Yellow Bush Scalloped.*

Seedsmen's synonyms. *Pattypan,* JMP Stk Thm.

Early Fordhook. Bgg Bgs. For similar names see *Fordhook.*

Early Golden Bush Scalloped. Bdg Emr Ger *Gfg* Grw TG Hrv J&S JL Mnd Min MV Nol *Sox* Thr.

Similar names. See *Yellow Bush Scalloped.*

Seedsmen's synonyms. *Early Yellow Bush,* J&S Nol.

Early Golden Custard. Fqr. For similar names see *Golden Custard.*

Early Mammoth Summer Crookneck. Por S&R Tat.

SIMILAR NAMES. See *Summer Crookneck.*

Early Mammoth White Bush Scalloped. Brb Fqr Gry Lnr Mnd Mls Por S&R S&F Sie S&W Vin.

Early Orange Marrow. Bel Bur Cle CF Del Elt Emr Fmr Frd GH TG Hrs Hbt H&P J&S Lea McK MV NK Qkr Ren Sox Tat Thr *Vl* Y&H.

SIMILAR NAMES. See *Orange Marrow.*

SEEDSMEN'S SYNONYMS. *Chicago Orange Marrow*, Frd. *Dunlap's Early Prolific Marrow*, Frd. *Early Prolific Marrow*, Bow Frd Fqr S&F Sox Y&H. *Extra Early Marrow*, Frd. *Prolific Marrow*, Hrs Ren.

Early Pineapple. NK. For similar names see *Pineapple.*

Early Prolific Marrow. Brk Brb C&B Col CF Cur Dun Ewg GH Gra Gry Hrm Hrv Hst Hen Iow K&W LB *Nol* Raw S&F Sox W&D Y&H.

SIMILAR NAMES. See *Prolific Marrow.*

SEEDSMEN'S SYNONYMS. *Chicago Orange Marrow*, Frd. *Dunlap's Early Prolific Marrow*, Frd. *Early Orange Marrow*, Bow Fqr Frd Raw S&F Sox Y&H. *Extra Early Marrow*, Frd. *Orange Marrow*, Brk Gry.

Early Prolific Orange Marrow. Blg Bow *Buc* C&J DD Drr Fqr Fer Fle J&S Pne Vk Wea.

SIMILAR NAMES. See *Orange Marrow, Prolific Marrow.*

Early Striped Bush. Bdg.

SIMILAR NAMES. Green-Striped Bush.

Early Summer Crookneck. Bak Ber Blg Bru CE CF Crg Del Eas Elt Emr Fqr Gls GH Gry G&T Grw Hde Hrs H&P Iow Ken Lea NK OV Pnt Ptt Pot Raw Ree *Rs* RP SC S&F S&O S&W TB *Tpk* Wea Y&H.

SIMILAR NAMES. See *Summer Crookneck.*

SEEDSMEN'S SYNONYMS. *Early Summer Warted*, Fqr S&F.

Early Warted Summer Crookneck. Fqr Rs S&F.

SIMILAR NAMES. See *Summer Crookneck.*

SEEDSMEN'S SYNONYMS. *Early Summer Crookneck*, Fqr S&F.

Early White Bush Scalloped. Alx Ar Bai Btl *Bel* Blg Bou Bow Bdg Brn Bru Buc Bui Bur C&J *Cam* CE Crg Crs Dlw Del DD D&C Drr Ebe Eic Elt Emr Fst Ger Gls Gdn GH Gra Ggy Gfg G&T Grw TG Hde Hrs Hrv Hst H&C Hlm Hop H&P Jac MWJ K&W *Kg* Lan Lea LB Lnr Loh Mnd PM Mns Mau JCM JMM McK McM Mel Mic Mhl Min MV Mzy Neb NK OV Pac Pg Pir Pnt Por Pri Pug Qkr Raw Ree Ren Rce Rim Roc RP S&R Shw S&O Sox S&H S&W Tat Tex TB Thm Thr AGT Tpk Trm Vl Vk Vin Wlt WS Yng Y&H.

SEEDSMEN'S SYNONYMS. *Cymbling*, Bur Lan. *Pattypan*, Bui Bow Mhl JCM Qkr Rim, etc. *Pattypan Cymbling*, Wd WS. *Scalloped Pattypan*, Ar. *White Pattypan*, Pir Bur D&C Hst Pnt Trm Yng.

Early White Summer Crookneck. Raw. For similar names see *Summer Crookneck.*

Early Yellow Bush Scalloped. Alx Bgs Bru Buc Bur C&J CE Cox Crs DD Elt Evr Fst Fer GH Gra Gry G&T Hde Hst Hse J&S K&W *Kg Lam* LB Loh Mau JCM JMM McK Neb Nol NK OV Pac Pnt Ree Ren Rce Roc RP S&R S&W Thb Tpk Trm Vl Vin Yng Y&H.

SIMILAR NAMES. See *Yellow Bush Scalloped.*

SEEDSMEN'S SYNONYMS. *Early Golden Bush*, J&S Nol. *Yellow Pattypan*, Bur Pnt Trm.

Early Yellow Summer Crookneck. Buc C&J Crs Hrs Mas Sox Vin.

SIMILAR NAMES. See *Summer Crookneck.*

SEEDSMEN'S SYNONYMS. *Golden Crookneck.* Buc.

Eggplant Bush. *CE* Lea MV M&S Ree *Sox* Thr.

SIMILAR NAMES. Henderson's Eggplant.

English Vegetable Marrow. Bdg Bui RE Fle Gng Iow Lnr McK Pks Por Ren S&R Sim SB Thr.

Similar names. See *Vegetable Marrow.*

Essex Hard Shell Turban. Fqr. For similar names see *Essex Hybrid, Turban.*

Seedsmen's synonyms. *Essex Hybrid,* Fqr.

Essex Hybrid. Alr Bai Brd Btl Bel Ber Bow Bgg Brk Bdg Bgs Brn Bru *Brb* Bur Brr C&J CE Cle C&B CF Cox Crs Cur *CA* D&H DD Drr Eas Ebr Emr *RE* Evr Fmr Fqr Fst Fax Fld Frd Gls Ggy Gry TG Hrm Hrs Hen Hop H&P Iml J&S K&W Lam Lan Lnr Liv JL Mas Mau May JCM JMM Mls MV Neb Pac Pir Prn Poo Por Pot Pri Raw Ren Rce Rob Roc Rs RP Sal S&R S&O Shm Sim Sox Spf SB S&H Tem Thr Thb T&B Vl *Van* Vk Vin W&D Wdr Yng Y&H.

Similar names. Essex Hybrid Turban, Essex Hard Shell Turban.

Seedsmen's synonyms. *American Turban,* Bow Drr Lam Por RP S&R, etc. *Essex Hard Shell Turban,* Fqr. *Hard Shell Turban,* Cox D&H Hrm Iml Pri S&O Vk. *Turban,* Bru Roc. *Warren,* Drr J&S Vk.

Essex Hybrid Turban. GH S&F. For similar names see *Essex Hybrid, Turban.*

Eureka. Anb Liv Mns.

Everbearing. Wd.

Similar names. Wood's Everbearing.

Extra Early Bush Scalloped. *CA* Gfg Koe Lan Stw.

Similar names. See *Yellow Bush Scalloped.*

Extra Early Jersey White Bush Scalloped. Bui Drr *J&S.*

Extra Early Orange Marrow. *CE* D&H Grw Rce.

Similar names. See *Orange Marrow.*

Extra Early Pattypan. M&S. For similar names see *Pattypan.*

Extra Early Prolific Marrow. Bgg. For similar names see *Prolific Marrow.*

Extra Early Prolific Orange Marrow. Pri.

Similar names. See *Prolific Marrow, Orange Marrow.*

Extra Early White Bush Scalloped. *Alx Gfg Hlm* M&S.

Similar names. See *White Bush Scalloped.*

Extra Large Golden Bush Scalloped. Ken Til.

Similar names. *Yellow Bush Scalloped.*

Extra Large Golden Custard. HP. For similar names see *Golden Custard.*

Fall Crookneck. C&J CF TG. For similar names see *Summer Crookneck.*

Seedsmen's synonyms. *Winter Crookneck,* C&J.

Faxon. Ar Brt Bkt Bel Bgs Brn Bru Bng Buc Brb Bur Brr C&J *CE* Col CF Cok Cox Crs Cur *CA* Del Drr Drw Eas Ebe RE Evr Ewg Fmr Fqr Frd Gls *Gra* Gng Ggy TG Ham Hrm Hrn Hst Hop Hse H&P Iml Iow Jer MWJ J&M J&S Jns K&W Kg Liv Mau May Mls MV Mzy NK OV JMP Pne Ptt Por Pri Raw Ren Rce Rob Roc Rs Sal S&R Shm Sie Sim *Sox* S&H Tem Thr *Tlh Tpk Vl* Vk Wyg.

Faxon's Brazilian. *Buc* Lnr Vau. For similar names see *Brazil Sugar.*

Ferry's Green Mountain. Entered as *Green Mountain.*

Fordhook. Alr Ar Brd Bel Ber *Bgg* Bri Bru Bng Buc Bur Brr C&J *CE* Chl Cle Col Cox Cur Dlw Del D&C Drr Ebe *Ebr* Elt RE Ewg Fqr Fst Fld Frd Gdn Gra GN Gry Grw Ham Hrn Hlm Hop H&P Iml Jer J&S Kg Lnr *LB* Liv Mgd Man Mau May JMM McK Mhl MV Mzy Neb *Nol* NI NK Pac Pg HP JMP Pir Ptt Por Pot Qkr Raw Ree Ren Rce Roc Rs Sal S&R S&F S&O Shm Sie Sim Sox Spf Tem Thr *Trm Vl* Vau Vk *Wat* W&D Wll Wdr Wyg Y&H.

Similar names. Early Fordhook, Burpee's Fordhook, Burpee's Bush Fordhook, Bush Fordhook.

French Cocoanut. M&S. For similar names see *Cocoanut.*

Giant Summer Crookneck. Anb Brd Brt Bkt Bel Bgg Brk Bng Buc Bur Brw C&J *Cam CE* Chl C&B Col CF Cok Cur D&H DD Ebe RE Evr Fst GN TG Ham

Hrn Hrs Hst Hbt Hlm Hse J&S Jns *Kg* Lnr JL Mnd McM Nol Old HP Ptt Poo Pot Pri Rce Roc Rt Shw Shm Sie Spf *SB* S&H Tem Thr Til *Vau* Vin *Wat* Wea W&D Wer Wd Wdr Yng Y&H.

SIMILAR NAMES. See *Summer Crookneck.*

SEEDSMEN'S SYNONYMS. *Mammoth Summer Crookneck*, J&S Nol Shw.

Giant White Bush Scalloped. C&B. For similar names see *White Bush Scalloped.*

SEEDSMEN'S SYNONYMS. *Long Island*, C&B.

Giant White Summer Crookneck. Buc *Hrs Kra* Vau.

SIMILAR NAMES. See *Summer Crookneck.*

Giant Yellow Summer Crookneck. Alr Bui Cam Gdn Jac Liv *Nol.*

SIMILAR NAMES. See *Summer Crookneck.*

Giant Yellow Summer Straightneck. Buc Bur Frd Hrn Lnr Poo Thr *Tlh.*

SIMILAR NAMES. See *Summer Crookneck.*

Golden Bronze. Brk Bur Col *D&H* Drr Eas Elt Fqr Ggy Hrm H&P Liv Mau May Pne Ptt Raw Thr *Tlh* Vau Vk.

Golden Bush Scalloped. *Bgg* Brw Ebe *RE Ggy* Hnt Iow *MWJ* J&M Pir SB Tat Thm.

SIMILAR NAMES. See *Yellow Bush Scalloped.*

Golden Custard. Brd Bkt Brk Bri *Bru* Buc Bui Bur Cam *CE* Cle C&B CF Cur D&H Drr Elt RE Evr Fst Frd GH Gry Hst Hen Hlm J&S Kg Lnr Liv Mnd Mgd Mas Mau Mhl M&S NK Rce Sal Shw Shm S&H S&W Tat Tem Thr Vk Wer Wll.

SIMILAR NAMES. Early Golden Custard, Extra Large Golden Custard, Mammoth Golden Custard, Silver Custard.

SEEDSMEN'S SYNONYMS. *Buckbee's Mammoth Yellow Bush*, Buc. *Mammoth Yellow Bush*, Frd Hlm J&S Mau Mgd Tem, etc.

Golden Hubbard. Alr Brd Brt Btl Bkt Bow Brk Brn *Bru* Buc Bur Brw *CE* Col Cur Dlw D&H Drr Ebe RE Fmr Fer Frd Ggy Grw *TG* Hns Ham Hrv Hlm Iml Iow J&M Ken Kra Lam Lnr *LB* Liv Mgd Mau May McK Mls MV Neb Old Pg JMP Pne Pnt Ptt Por Raw Rce Rob Roc Rs S&R Shw Shm Sim Sox S&H Tem Thr AGT Til *Tpk* Vau Vk Web *Wdr* Yng Y&H.

SIMILAR NAMES. See *Hubbard.*

SEEDSMEN'S SYNONYMS. *Red Hubbard*, Brk Bur Cur Lnr Mgd Ren, etc.

Golden Summer Crookneck. Entered as *Yellow Summer Crookneck.*

Green Mountain. Brn Frd Gls Iml Lam Rs Vk.

SIMILAR NAMES. Ferry's Green Mountain, Rocky Mountain.

Green-Striped Bush. Mzy. For similar names see *Early Striped Bush.*

Green Summer Crookneck. Bur Gfg M&S *Nol* Pri Wd.

SIMILAR NAMES. See *Summer Crookneck.*

Green Winter Crookneck. *Mhl.* For similar names see *Summer Crookneck.*

Gregory's Butman. Entered as *Butman.*

Gregory's Golden Bronze. Entered as *Golden Bronze.*

Hammond's Hard Shell Marrow, Hammond's Mammoth Hubbard, Hammond's Mammoth White Bush Scalloped, Hammond's Giant Summer Crookneck. Entered as *Hard Shell Marrow*, *Mammoth Hubbard*, *Mammoth White Bush Scalloped*, and *Giant Summer Crookneck.*

Hard Shell Marrow. *D&H* Fer Ham Vau.

SIMILAR NAMES. Hammond's Hard Shell Marrow.

Hard Shell Turban. Cox D&H Hrm Iml Pri Rce Vk.

SIMILAR NAMES. See *Turban.*

SEEDSMEN'S SYNONYMS. *Essex Hybrid*, Cox D&H Hrm Iml Pri S&O Vk.

Heart O' Gold. *Fmr* Hen Liv Vau.

SIMILAR NAMES. Henderson's Heart O' Gold.

Henderson's Delicata, Henderson's Eggplant Bush, Henderson's Heart O' Gold, Henderson's Long Island White Bush Scalloped. Entered as *Delicata, Eggplant Bush, Heart O' Gold,* and *Long Island White Bush Scalloped.*

Hester. Iow.

Holmes' Boston Marrow. Entered as *Boston Marrow.*

Hubbard. Alr Anb Ar Bai Brd Brt Btl Bkt Bel Blg Bou Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brw C&J Cam CE Chl Cle C&B Col CF Cok Cox *Crg* Crs Cur Dlw Del DD D&C Drr Drw Drm Dun Eas Ebe Ebr Eic Elt Emr RE Evr Fmr Fqr Fst Fax Fer Frd Ger Gls Gdn GH Gra Gng Ggy Gry Gfg G&T Grw TG Hns Hrm *Hrs* Hrv Hst Hen Hbt H&C Hly Hop Hse H&P Iow Jac Jer MWJ RHJ J&M J&S Jns *Kei* K&W Ken K&F Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv JL Loh Mnd Mgd Man PM Mns Mas Mau May JCM JMM McM Mel Mic Mhl Mls Min MV Mzy Nef Nol NI NK OV Old Pac Pg Pks HP JMP Pir Prn Pne Pnt Ptt Poo Por Pot Pri Pug Qkr Rtk Raw Ree Ren Rce Rob Roc Rt Rs RP Sal S&R SC S&F S&B Shw S&O Shm Sim Sox Spf Stk SB Stw S&H S&W Tat Tem Tex TB Thm Thr Thb AGT *Tlh* Tpk Trm T&B Vk Vl Vau Vin Wat Wea Web W&D Wer Wll Wd Wdr WS Wyg Yng Y&H.

Similar names. Lohrman's Hubbard, Improved Hubbard, Maule's Improved Hubbard, Salzer's Improved Hubbard, Mammoth Hubbard, Hammond's Mammoth Hubbard, Blue Hubbard, Golden Hubbard, Red Hubbard, White Hubbard, Warted Hubbard, Leonard's Warted Hubbard, Chicago Warted Hubbard, Improved Warted Hubbard, Large Warted Hubbard, Mammoth Warted Hubbard, Toledo Warted Hubbard.

Seedsmen's synonyms. *Winter,* Bdg.

Improved American Turban, Improved Boston Marrow, Improved Cushaw, Improved Extra Early White Bush Scalloped, Improved Hubbard, Improved Long Marrow, Improved Large Summer Crookneck, Improved Marblehead, Improved Orange Marrow, Improved Pattypan, Improved Summer Crookneck, Improved Warted Hubbard, Improved White Bush Scalloped, Improved Yellow Summer Crookneck. Entered as *American Turban, Boston Marrow, Cushaw,* etc.

Italian Striped Vegetable Marrow. Fle SB.

Similar names. See *Vegetable Marrow.*

Italian Vegetable Marrow. *Fer* Thr. For similar names see *Vegetable Marrow.*

Seedsmen's synonyms. *Cocozelle di Napoli,* Thr.

Japanese Alphabet. Chl. For similar names see *Japanese Pie.*

Japanese Pie. Spf.

Similar names. Japanese Alphabet.

Jumbo. Pg.

Large Boston Marrow. Lan. For similar names see *Boston Marrow.*

Large Cream Vegetable Marrow. *Kei.* For similar names see *Vegetable Marrow.*

Large Mammoth Chile. Pks Sim. For similar names see *Mammoth Chile.*

Large Marrow. Gdn Jac.

Similar names. Improved Large Marrow.

Large Summer Crookneck. Ebr. For similar names see *Summer Crookneck.*

Large Warted Hubbard. Hen. For similar names see *Hubbard.*

Large Winter Crookneck. Elt Ggy Ken Pnt Rs SC S&F TB.

Similar names. See *Summer Crookneck.*

Seedsmen's synonyms. *Cushaw,* Pnt.

Leonard's Giant Yellow Summer Straightneck, Leonard's Warted Hubbard. Entered as *Giant Yellow Summer Straightneck* and *Warted Hubbard.*

Livingston's Cushaw, Livingston's Improved Cushaw. Entered as *Cushaw.*

Livingston's Pie. *Bel* Ewg Frd MWJ Liv Rob S&B.

Similar names. See *Pie.*

Lohrman's Hubbard. Entered as *Hubbard.*

Long Cream Vegetable Marrow. D&H. For similar names see *Vegetable Marrow.*

Long Green. Brw *Eic.*

Seedsmen's synonyms. *Black Michigan*, Brw. *Summer Crookneck*, Stk.

Long Green Summer Crookneck. J&S Nol Stk.

Similar names. See *Summer Crookneck.*

Long Island Mammoth White Bush Scalloped. M&S.

Long Island White Bush Scalloped. C&B D&H Fer Hen Hlm Neb Sim Thr.

Seedsmen's synonyms. *Giant White Bush*, C&B.

Long Snow White Summer. Koe.

Seedsmen's Synonyms. *Cocozelle*, Koe.

Long Summer Crookneck. Pac. For similar names see *Summer Crookneck.*

Long White Bush Vegetable Marrow. Bru D&H RE Ewg Fle Frd Gra *Kei* McK Pks Ren Rob SB W&D.

Similar names. See *Vegetable Marrow.*

Long White English Vegetable Marrow. Bru.

Similar names. See *Vegetable Marrow.*

Long White Vegetable Marrow. Bur Ger *Kei* Sim W&D.

Similar names. See *Vegetable Marrow.*

Low's Bay State. Entered as *Bay State.*

Mammoth. Bru Ewg Gra *Kei* Pac Sal. For similar names see *Mammoth Whale.*

Mammoth Chile. Alr Anb Ar Bai Bak Brt Btl Bkt Bel Ber Bow Bdg Bgs Bui Bur Brr C&J CE Chl Cle C&B Col CF Cox Crs Cur D&H Del DD Drr Ebe Elt Emr RE Evr Fmr Fst Frd Ger Gdn Ggy Grw TG Ham Hrm *Hrn* Hrv Hst Hen Hbt Hlm Hop Hse H&P Iow J&S K&W Ken Kg Kra Lam Lan LB Lnr Liv Loh Mgd Man Mas Mau May JMM Mel Mls MV M&S Mzy Neb *Nol* NI NK Old Pac HP JMP Pir Pnt Por Pot Pri Raw Ree Rce Rs RP S&R SC•S&O Shm Sox Spf S&W Tat Tem Tex TB Thr Trm Vl Vau Vk Vin Web W&D Wer Y&H.

Similar names. Large Mammoth Chile, Salzer's Chile, Chilean Giant, Chile.

Seedsmen's synonyms. *Mammoth King*, D&H. *Mammoth Yellow*, Ggy.

Mammoth Cream-Colored Summer Crookneck. Hen.

Similar names. See *Summer Crookneck.*

Mammoth Golden Bush Scalloped. Kra Vau.

Similar names. See *Yellow Bush Scalloped.*

Mammoth Golden Custard. Lan Qkr. For similar names see *Golden Custard.*

Mammoth Hubbard. Del Evr Ewg Ham Mls Sie Tat.

Similar names. See *Hubbard.*

Mammoth King. D&H. For similar names see *Mammoth Whale.*

Seedsmen's synonyms. *Mammoth Chile*, D&H.

Mammoth Prize. GN. For similar names see *Mammoth Whale.*

Mammoth Summer Crookneck. Bow Bgs Brn Fer Gls GH Grw Hns Hrv Hen Hop Iml J&S Lam LB Loh Mgd Mzy Neb Nol NK Pg Pne Pnt Rs Shw Thb Vl Vk Web.

Similar names. See *Summer Crookneck.*

Seedsmen's synonyms. *Giant Summer Crookneck*, J&S Nol Shw.

Mammoth Valparaiso. Shm. For similar names see *Valparaiso.*

Mammoth Warted Hubbard. Brk Gra Ken McK *S&F* Thr.

Similar names. See *Hubbard.*

Mammoth Whale. Bru Bur Chl D&H *RE* Frd J&S Liv Mls *Rce* Sim SB Thr Vau *Wat.*

Similar names. Mammoth Prize, Mammoth King, Mammoth Yellow, Rennie's Green Mammoth, Mammoth.

Mammoth White Bush Scalloped. Btl Bkt Bow Brk Bgs Brn Bue Bui Bur Cam *CE* Cle Col CF Cox Crs Cur Drm Evr Fer Frd Gdn GH *GN* Ggy Gfg Hns Ham Hde *Hrn* Hst Hbt Hlm Iml Jac J&M J&S *Jns Kg Kra* Lam LB Liv JL Loh Mgd

Man *JMM* McM Neb NK Old HP Pne Pnt Poo Pri Rce Roc Shw Shm *Sie* Thr Thm Vl Vau Vk *Wat* Wea Wll Wd WS Yng.

Seedsmen's synonyms. *Improved Pattypan*, Buc Ham. *Large Pattypan*, Bur. *Silver Custard*, Vk.

Mammoth Yellow. Fqr Fax Ggy Ren Thm.

Similar names. See *Mammoth Whale.*

Seedsmen's synonyms. *Mammoth Chile*, Ggy.

Mammoth Yellow Bush Scalloped. Buc Bur Crs Frd GH Hlm J&S *Jns* Liv Pg Roc Spf Tem *Thm.*

Similar names. See *Yellow Bush Scalloped.*

Seedsmen's synonyms. *Golden Custard*, Buc Frd Hlm J&S Man Mgd Tem, etc.

Mammoth Yellow Summer Crookneck. *Bgg* Crs Tat.

Similar names. See *Summer Crookneck.*

Marblehead. Alr Anb Bai Bak Brt Btl Bel Bgg Brk Bdg Bgs Bri Brn Buc Bui C&J *Cam CE* Cle C&B Col CF Cox Cur Dlw Del DD Drr Eas Ebe Elt Emr RE Ewg Fqr Frd Ger Gls Gdn GH Gra Ggy Gry Grw TG Hns Hrm Hrs Hen Hop Hnt H&P Iow J&M Jns K&W Ken Kos Kra Lea *LB* Lnr Liv JL Mgd Man Mas Mau May JCM JMM Mls MV Mzy Neb Nef *Nol HP* JMP Pne Por Pri Raw Ren Rce Rob Roc Rs RP Sal S&R SC S&O Shm Sim Sox SB S&W Tem Thr Thb Tpk Vl Vau Vk Vin Web W&D Wdr Y&H.

Similar names. Improved Marblehead.

Seedsmen's synonyms. *Blue Hubbard*, Iow.

Maule's Improved Hubbard. Entered as *Hubbard.*

May's Warted Hubbard. Entered as *Warted Hubbard.*

Mediterranean. *Bgg* Bgs.

Metcalf. Chl Eas.

Mexican Banana. Bur DD Shm.

Moore's Cream Vegetable Marrow. Entered as *Cream Vegetable Marrow.*

Orange Marrow. Brd Brk Bgs Brn Fqr Fld Gdn Gry Lnr *LB* Mgd Man May NI Pac Por Raw Rob *Rs* S&R S&F S&O *Stk Tlh* Wdr.

Similar names. Improved Orange Marrow, Chicago Orange Marrow, Colvin's Orange Marrow, Early Orange Marrow, Extra Early Orange Marrow, Prolific Orange Marrow, Early Prolific Orange Marrow, Extra Early Prolific Orange Marrow.

Seedsmen's synonyms. *Early Prolific Marrow*, Brk Gry. *Prolific Marrow*, Wdr.

Patagonia. Bdg.

Seedsmen's synonyms. *Seven Years Custard*, Bdg. *Butter*, Bdg.

Pattypan. Ar Buc Cam Eic Gfg Hen Jac McM Pir Stk Wd WS.

Similar names. Improved Patty Pan, White Patty Pan, Yellow Patty Pan, Dow's Extra Early Patty Pan, Extra Early Patty Pan.

Seedsmen's synonyms. *Buckbee's Mammoth White Bush Scalloped*, Buc. *Cymbling*, Drm Liv. *Early Bush*, JMP Stk. *Early Bush Scalloped*, Thm. *Early White Bush*, Bow Bui Mhl Mel Qkr Rim, etc. *Early White Bush Scalloped*, Blg Buc Bdg Raw Vk. *Mammoth White Bush Scalloped*, Ham. *White Bush*, Cam Spf. *White Bush Scalloped*, Drm J&S Liv PM SC. *Yellow Bush Scalloped*, Iow SC.

Pen-y-Byd Marrow. Gra.

Seedsmen's synonyms. *Best in the World*, Gra.

Perfect Gem. Alr Anb Bai Brd Btl Ber Bow Bgg Bgs Brn Bru Buc Bur *CE* Chl Cle CF Cox Crs Emr Fqr Fst Gry Hns Hrn Hrs *MWJ Kei* Lam Lnr Mnd May JCM JMM McK MV NK OV Pks Pir Prn Ptt Pri Raw Ren Rce Rob Roc Sal S&F Shm Sim *Sox* S&H S&W TB Thr Tpk T&B Vk Vin W&D Wyg.

Peruvian. Shm.

Similar names. Shumway's Peruvian.

Pie. Bur.

Similar names. Livingston's Pie.

Seedsmen's synonyms. *Winter Luxury Pumpkin*, Bur.

Pike's Peak. Bai *Bel Bow* Bgg Bgs Brn Buc Bur Brr Brw Cam *CE* Cle Col Cox Crs Del DD Drr Drm Ebr Emr Fmr Fqr Frd Ger Gdn Ggy Gry Grw Ham Hrs Hrv Hbt Hop Hse Iml Iow J&M Jns Lam *LB* Liv JL Mnd May JMM Mls MV Pac *Pg* HP Pir Prn Ptt Pri *Ren* Rce Roc Sal S&F Sim SB Tem Thm *Tpk* Trm T&B Vau Vk Vin Web Y&H.

Seedsmen's synonyms. *Sibley*, Buc Bur Col Cox Fqr Iow, etc.

Pineapple. Anb *Bgg* Buc Bur Emr GN J&M *Kei* Kg Lnr Mnd Mau May JMM MV Mzy *Nol* Pac Ptt Ren Roc Sal *Sox* S&W Thr Vl Vk Vin W&D Wer Yng.

Similar names. White Pineapple, Early Pineapple.

Seedsmen's synonyms. *Cocoanut*, Vin.

Prolific Marrow. Btl Bkt *Bgg* Bri Brr Hrs Ken Mau Rob Rs S&O Wer Wdr.

Similar names. Dunlap's Prolific Marrow, Dunlap's Early Prolific Marrow, Dunlap's Early Marrow, Early Prolific Marrow, Extra Early Prolific Marrow, Earliest Prolific, Wood's Earliest Prolific, Prolific Orange Marrow, Early Prolific Orange Marrow, Extra Early Prolific Orange Marrow.

Seedsmen's synonyms. *Early Orange Marrow*, Hrs Ren. *Orange Marrow*, Wdr.

Prolific Orange Marrow. Alr Buc Bui Evr Roc Shm Vl.

Similar names. See *Prolific Marrow, Orange Marrow.*

Red China. Bel Bgg Fst. For similar names see *Chinese.*

Red Hubbard. Brk *Bru* Bng Bur Cur Iow J&S Kra Lnr Mgd MV Nol Ptt Pri Ren *Sox Spf* SB Vau Wll Yng.

Similar names. See *Hubbard.*

Seedsmen's synonyms. *Golden Hubbard*, Brk Bur Cur Iow Mgd Vau, etc.

Rennie's Green Mammoth. Ren. For similar names see *Mammoth Whale.*

Rocky Mountain. Wll. For similar names see *Green Mountain.*

Salzer's Chile, Salzer's Improved Hubbard. Entered as *Chile* and *Hubbard.*

Shumway's Mexican Banana, Shumway's Peruvian. Entered as *Mexican Banana* and *Peruvian.*

Sibley. Anb Bai Brd Btl Bkt Bel Ber *Bow* Bgg Bgs Brn Buc Brb Bur Brr Brw *CE* Chl Cle Col Cox Crs Del DD Drr Drm Eas Ebr Fqr Fst Frd Ger Gdn Ggy Grw Hrs Hse Iml Iow RHJ J&M Jns Kos Lam Lnr *LB* Liv JL Mau May JCM JMM Mls MV Mzy NI OV Pac *Pg* HP Pir Prn Ptt Por Pri Ren Rce Rob Roc Rs S&R S&F S&O Shm Sim Sox SB S&H Tem Thm *Tpk* Trm T&B Vau Vk Vin Web Y&H.

Similar names. Yellow Sibley.

Seedsmen's synonyms. *Pike's Peak*, Buc Bur Drr Fqr Iow Lam Liv, etc.

Silver Custard. Brd *Bdg* Hen J&S Mau Rce Tat Thr Vau.

Similar names. See *Golden Custard.*

Seedsmen's synonyms. *Mammoth White Bush Scalloped*, Vk.

Small Cocoanut. Fst. For similar names see *Cocoanut.*

Strickler's Giant Summer Crookneck. Cur.

Similar names. See *Summer Crookneck.*

Strickler's Green Summer Crookneck. M&S.

Similar names. See *Summer Crookneck.*

Strickler's Summer Crookneck. Fqr Ggy.

Similar names. See *Summer Crookneck.*

Summer Crookneck. Anb Bai Bow Bdg Brn Brb Cle C&B Cur Drw Drm Dun Eic Ewg Fax Fer Ger Gra Ggy TG Hns Hrm Hrv H&C Hlm Jns *Kei* K&W K&F

Kg Kos Kra *LB* Lnr Mnd Man PM Mns May JMM McK Mzy Nef *Pac* Pg Pir Prn Pug Roc Rs S&B Sim Sox Stk SB Tem Thr Thb Tpk T&B Vau Web W&D Wll Wlt Wdr Wyg.

Similar names. Fall Crookneck, Winter Crookneck, White Winter Crookneck, Large Winter Crookneck, Canada Winter Crookneck, Arlington Summer Crookneck, Vaughan's Summer Crookneck, Long Summer Crookneck, Improved Summer Crookneck, Improved Large Summer Crookneck, Giant Summer Crookneck, Buckbee's Giant Summer Crookneck, Strickler's Summer Crookneck, Strickler's Giant Summer Crookneck, Mammoth Summer Crookneck, Early Mammoth Summer Crookneck, Warted Summer Crookneck, Early Warted Summer Crookneck, Early Summer Crookneck, Yellow Summer Crookneck, Giant Yellow Summer Crookneck, Large Summer Crookneck, Green Winter Crookneck, Mammoth Yellow Summer Crookneck, Improved Yellow Summer Crookneck, Early Yellow Summer Crookneck, Cream-Colored Summer Crookneck, Mammoth Cream-Colored Summer Crookneck, White Summer Crookneck, Early White Summer Crookneck, Giant White Summer Crookneck, Green Summer Crookneck, Strickler's Green Summer Crookneck, Long Green Summer Crookneck, Yellow Summer Straightneck, Leonard's Giant Summer Straightneck, Giant Yellow Summer Straightneck.

Seedsmen's synonyms. *Early Warted*, Rs. *Long Green*, Stk.

Sutton's Long White Vegetable Marrow. M&S.

Similar names. See *Vegetable Marrow.*

Sweet Nut. Brw Drr J&S Mhl Vin.

Tilton's Extra Large Golden Bush Scalloped. Entered as *Extra Large Golden Bush Scalloped.*

Toledo Warted Hubbard. HP. For similar names see *Hubbard.*

Turban. Bgs Bru Buc CF Crs Cur Dun Ewg Gra Hrv K&W Lnr Mnd *Mhl* MV Mzy Pir Pri Ren Roc Shm *Sox* TB Thr.

Similar names: American Turban, Improved American Turban, Hard Shell Turban, Essex Hybrid Turban, Essex Hard Shell Turban.

Seedsmen's synonyms. *Essex Hybrid*, Bru Roc. *Turk's Cap*, Bgs Crs Cur Hrv Pri.

Turk's Cap. Bgs Crs Cur Hrv Pri.

Seedsmen's synonyms. *American Turban*, Raw. *Turban*, Bgs Cur Crs Hrv Pri.

Valparaiso. Vin.

Similar names. Mammoth Valparaiso.

Vaughan's Summer Crookneck, Vaughan's Giant Summer Crookneck. Entered as *Summer Crookneck* and *Giant Summer Crookneck.*

Vegetable Marrow. Ar Bai Bow Brk Bru Bur Brr *CE* C&B CF Cox Cur DD Drr Elt Ewg Fqr GH Gra G&T TG *Hrn* Hrs Hen MWJ Ken Lam Man Mau May JMM Mhl Mzy *Nol* NK *Pac* Pot Pug Qkr Raw Rce Rob S&F S&O Sim S&W T&B Vau Vk Vin Wea W&D.

Similar names. Italian Vegetable Marrow, Italian Striped Vegetable Marrow, English Vegetable Marrow, Long White English Vegetable Marrow, Long White Vegetable Marrow, Sutton's Long White Vegetable Marrow, Long White Bush Vegetable Marrow, White Bush Vegetable Marrow, Cream Vegetable Marrow, Moore's Cream Vegetable Marrow, Long Cream Vegetable Marrow, Large Cream Vegetable Marrow.

Seedsmen's synonyms. *Boston Marrow*, Bow. *Long White Marrow*, Bur. *Moore's Cream*, Bru.

Victor. Ggy.

Warren. Brt Brk *Bur* Drr Fqr Ggy Gry J&S M&S Raw Rce Rs S&F Thr.

Seedsmen's synonyms. *American Turban*, Drr. *Essex Hybrid*, Drr J&S Vk. *Hard Shell Turban*, Vk.

Warted Hubbard. Brd Btl Bkt Brb *CE* Col Crs *Drr* Dun Emr *RE* Fld GH Ggy Gry Hns Hrs H&C Iow Kos Lan Lnr LB JL *May JCM* JMM MV NK Pac Pne Ptt *Pri* Raw Rce S&O Sox Spf SB Stw *Tlh* Til.

Similar names. See *Hubbard.*

Warted Summer Crookneck. Fqr S&F. For similar names see *Summer Crookneck.*

White Bush Scalloped. Alr Bak Brd Brt Bel Bgg Bri Bng Cam Cle C&B Cur Drm Dun Ebr RE Ewg Fmr Fax Hrn Haw Hen Hly Hnt Iow J&M J&S Jns K&F Kg Kos Kra *LB* Liv May Nef Nol *Pac* Prn Pot Rs Sal SC Spf SB T&B *Vl* Vau Wat Wea Web W&D Wer Wdr.

Similar names. Improved White Bush Scalloped, Giant White Bush Scalloped, Mammoth White Bush Scalloped, Early Mammoth White Bush Scalloped, Boston Mammoth White Bush Scalloped, Buckbee's Mammoth White Bush Scalloped, Long Island Mammoth White Bush Scalloped, Henderson's Long Island White Bush Scalloped, Long Island White Bush Scalloped, Early White Bush Scalloped, Extra Early White Bush Scalloped, Extra Early Jersey White Bush Scalloped, Dow's Extra Early White Bush Scalloped, Bush Scalloped, Early Bush Scalloped, Extra Early Bush Scalloped, Arlington White Bush Scalloped. See also *Yellow Bush Scalloped.*

Seedsmen's synonyms. *Pattypan,* Cam Drm Liv J&S SC Spf. *Scalloped Summer,* Ebr. *Cymbling,* Drm Hen Liv.

White Bush Vegetable Marrow. Gng. For similar names see *Vegetable Marrow.*

White Chestnut. Bkt Ggy Hrn Iow J&S *Vl.*

Seedsmen's synonyms. *White Hubbard,* Iow.

White Hubbard. Iow Lnr. For similar names see *Hubbard.*

Seedsmen's synonyms. *White Chestnut,* Iow.

White Pattypan. Blg Bou Bui D&C Eic Gdn Hrn Hen Lan PM McM Mel Mhl Min JMP Qkr Rim SC Shw Spf.

Similar names. See *Pattypan.*

Seedsmen's synonyms. *Cymbling,* Bur. *Early White Bush,* Pir. *Early White Bush Scalloped,* Bur D&C Hst Pnt Trm Yng.

White Pineapple. Alr Btl Bui *CE* DD RE Fst Frd Hns J&S Min *Pac* JMP Rce SC S&O Shm T&B *Vl Wat.*

Similar names. See *Pineapple.*

Seedsmen's synonyms. *White Turban,* Rce.

White Summer Crookneck. Bel Bgg Brn Bur Fer Frd Hrs Kra Lam LB Lnr Liv Mgd Mau Pg S&H Vk Wdr.

Similar names. See *Summer Crookneck.*

White Winter Crookneck. Hly. For similar names see *Summer Crookneck.*

Winter. Bdg.

Seedsmen's synonyms. *Hubbard,* Bdg.

Winter Crookneck. Anb Bai Brt Bkt Blg Brk Bdg Brr C&J *CE* Cle C&B CF Cox Cur Drr Ebe Emr RE Evr Ewg Fqr Fst GH Gra Gry Ggy G&T Grw TG Hrm H&P K&W Kg Lan Mnd Man PM Mns Min *Nol Pnt* Ptt Pot Raw Ree Rce Rob RP Spf S&W *Thm* Thr Thb Tpk Trm Vl Vk W&D Wyg.

Similar names. See *Summer Crookneck.*

Seedsmen's synonyms. *Canada Crookneck,* Bdg. *Fall Crookneck,* C&J.

Winter Luxury Pumpkin. *Bel* Bur.

Seedsmen's synonyms. *Pie Squash,* Bur.

Wood's Earliest Prolific, Wood's Everbearing. Entered as *Earliest Prolific* and *Everbearing.*

Yellow Bush Scalloped. Alx Alr Brd Bgg Bri Brn *Cam* Cle C&B C&F Ewg Fmr Haw Hen Hlm Hrm J&S Jns Lam *LB* Man May Nef Nol Ptt Poo Pot Pri Raw Sal SC S&O Tat Vau Wea W&D.

Similar names. Early Yellow Bush Scalloped, Mammoth Yellow Bush

Scalloped, Buckbee's Mammoth Yellow Bush Scalloped, Golden Bush Scalloped, Early Golden Bush Scalloped, Mammoth Golden Bush Scalloped, Extra Large Golden Bush Scalloped, Tilton's Extra Large Golden Bush Scalloped, Early Bush Scalloped, Extra Early Bush Scalloped. See also *White Bush Scalloped.*

SEEDSMEN'S SYNONYMS. *Pattypan,* Iow SC. Cymbling Hlm.

Yellow Pattypan. SC. For similar names see *Pattypan.*

SEEDSMEN'S SYNONYMS. *Early Yellow Bush Scalloped,* Bur Pnt Trm.

Yellow Sibley. JL. For similar names see *Sibley.*

Yellow Summer Crookneck. Ar Brd Brt Btl Bkt Bel Bou *Bgg* Bri Bng Buc Bui Bur Cam *CE* Cox *CA* Dlw Drr Fst Gdn Hst Haw Hen Hly Jac MWJ J&M J&S Koe Lan Mau McM Mic Mhl Mls Min MV M&S Nol NI JMP *Pnt* Ren Rce Rim Sal Shw *Sox* Stw Tex Thm Trm *Vl* Vk Wat Wd WS.

SIMILAR NAMES. See *Summer Crookneck.*

Yellow Summer Straightneck. JMM Tat Vau.

SIMILAR NAMES. See *Summer Crookneck.*

SUNFLOWER.

Sunflower. Brt Bkt Ger Ggy MWJ Jns Kei Nol NI RP Thm.

African Black Giant. Ber.

Black Giant. Bou Mau Mls.

Black Seed. Gls.

Chinese Giant. M&S.

Giant Russian. Ar RE Ewg McK Ren.

Large Russian. Anb Brk Cam Cle C&B Cur Dun Eic Elt Fer Flc Hde Hrm Hen RHJ Lam Loh Mzy Nef Pg Pks Raw Til Tpk Wer.

Mammoth. Jer.

Mammoth Russian. Ar Bai Btl Bow Bgs Bng Buc Bui Bur Brr CE Col CF Cox Crs CA Dlw D&H Del DD Ebr Emr Ewg Fmr Fst Frd Ger Gdn GH Gra Ggy Gry Gfg Grw TG Ham Hst Haw Hbt Hlm Hop J&S Kos Kra LB Liv Mgd Mau May JCM JMM McM Mls Nol OV Old Pg HP JMP Ptt Poo Por Pug Qkr Rce Rt S&R SC S&F Shw Shm Sim SB Tat Tem Tex T&B Vau Vk Vin Web Wd Wdr WS Y&G Y&H.

Prize Mammoth. Alr.

Russian. Bkt G&T Hnt J&M Lam Lan Pir Wlt Wyg.

Tall Russian. Kei.

White Beauty. Bur Col CA Fmr Frd Kos Tem Vk Wer.

White Russian. Gls.

SWISS CHARD.

(Also called Sea Kale Beet, Spinach Beet, Leaf Beet, Chard, Summer Spinach, and sometimes Silver Beet.)

Swiss Chard. Alr Anb Bai Brd Brt Btl Bkt Bel Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Brr C&J *CE* Cle C&B Col CF Cox Crs Cur DD Drr Drw Dun Ebe Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Frd Ger Gls GH Ggy Gry G&T Grw Hns Hrm Hrv Hrs Hst Haw Hen Hly Hop Hse Iow MWJ RHJ J&S Jns *Kei* K&W Ken Koe *Kos* Lam Lan Lnr Liv JL Loh Mnd Man Mns Mas Mau May JCM JMM Mhl Min MV Mzy Nef Nol NI NK OV Old Pac Pg HP Prn Pne Pnt Ptt Poo Por Pot Pri Raw Ren Rce Roc Rs RP Sal S&R SC S&F *Shw* S&O Shm Sim Sox Spf Stk SB Stw S&H S&W Tat Thm Thr Thb Til *Tpk* T&B Vl Vau Vin Web W&D Wer Wll Wdr Y&H.

Asparagus. Chl.
Beck's Improved. Bru Vk.
Brazilian. Shm.
Crimson-Veined Brazilian. Thr.
Dracæna Leaved. Thr.
Golden. Gra.
Golden-Veined Brazilian. Thr.
Large Scarlet Brazilian. Vk.
Large Silver. Vk.
Large White. Bur.
Large White Silver. Eic M&S.
Large Yellow Brazilian. Vk.
Ornamental. Ggy Shm.
Red. Gra.
Scarlet-Ribbed Chilean. Thr.
Scarlet-Veined Brazilian. Thr.
Silver. Alr Anb *Ar* Btl Bel Bdg Bgs Buc Bui Brb C&B Col Crs Cur Eic RE Fmr Fst Fax Frd Ger GH Grw Hrm Hen Hly Hop Iow J&S Koe *Kos* Lan Lnr JL Loh Mns MV Nol NK Pac Pg HP Ptt Pot Raw Ree Roc SC S&F *Shw* Sim Sox Stk S&H Thm Thr Wea Wer Wdr Y&H.
Victoria Blood Red. Bdg.
White. Gra J&M *May* Sie Thm.
White Silver. RHJ.
Yellow Cutting. Mnd.
Yellow-Ribbed Chilean. Thr.

TOMATO.

Acme. Alr Ar Bai Bak Brd Brt Btl Bkt Bel Ber Blg Bou Bow Brk Bdg Bri Bru Bng Bui Brb Bur *Brr* Brw Cam CE Cle C&B CF Cox Crs Cur Dlw D&H DD Drr Ebe Ebr Eic Elt Emr Evr Ewg Fmr Fqr Fst Fer *Fld* Frd Ger Gdn Gra Ggy Gry Gfg G&T Hns Ham Hde Hrm Hrs Hrv Hst Hen H&C Hly Hlm Hop H&P Iow Jac MWJ RHJ J&M Jns Kei K&W Ken Kg Koe Kos Kra Lam Lan Lea Lnr LB Liv Loh Mnd Mgd Man PM Mns Mas Mau May JMM McM Mic Mhl Min MV *Mrs* Mzy Neb Nef Nol NI OV Pac Pks JMP Prn Pnt Ptt Poo Por Pot Pri Pug Qkr *Rtk* Raw Ree Ren Rs RP Sal S&R SC S&F S&O Shm Sox Spf Stk SB S&H S&W Tat Tex TB Thm Thr *Tlh* Til Tpk Trm T&B Vl Vau Vk Vin Web W&D Wer Wll Wd WS Wyg Y&H.
Similar names. Lohrman's Acme, Livingston's Acme, Livingston's Early Acme, Early Acme, Improved Acme.
Admiral Dewey. Pne.
Advance. Brb Fmr Frd Liv Lon S&O.
Similar names. Early Advance, Extra Early Advance, Purple Advance, Extra Early Purple Advance, Early Purple Advance, Cleveland's Advance
Alexander's Stone. Entered as *Stone.*
Alneer's Dwarf Champion. Entered as *Dwarf Champion.*
American Purple. Tem. For similar names see *Cincinnati Purple.*
Americus Hybrid. Fst.
Similar names. Faust's Americus Hybrid.
Aristobright. *Liv.*
Similar names. Dwarf Aristocrat, Livingston's Dwarf Aristocrat.
Arrington's Earliest. CA. For similar names see *Earliest of All.*

Atlantic. Ewg Gra McK S&F. For similar names see *Atlantic Prize.*

Seedsmen's synonyms. *Earliest of All,* Ewg Gra. *Early Ruby,* Gra.

Atlantic Prize. Alr Ar Bak Brd Brt Btl Bel *Blg* Bow *Bgg* Bgs Bri Brn Bru Buc Bui Bur Brr Brw C&J Cam *CE* Cle Col CF Cur Dlw D&H Del DD Drr Dun Ebe Ebr Eic RE Fqr Fer Fle Frd Gls Gng Gry G&T TG Hns Ham Hrv H&C Hlm Hop H&P Iml Iow Jac RHJ J&M J&S Jns Ken K&F Kg Kos Kra Lam Lan Lnr LB Liv JL Loh Mnd Mgd Man Mns Mas May *JCM JMM* Mhl Mls MV M&S Neb Nol NK OV Old Pac Pg Prn Pnt Ptt Poo Por Pot Pri Pug Qkr Raw Ree Rce Roc Rs Sal S&R SC Shw S&O Shm Sie Sim Sox Spf SB S&H S&W Tat *Tem Tex* Thm Thr Til *Trm* Vl Vau Vk Wea Web Wll Wdr Y&H.

Similar names. Early Atlantic Prize, Extra Early Atlantic, Improved Atlantic Prize, Atlantic.

Seedsmen's synonyms. *Early Ruby,* Brr Cur Drr H&C Sim Vk, etc. *Ruby,* Jns.

Autocrat. Brk J&S Thr.

Baltimore Prize Taker. Lan McM *Mel.* For similar names see *Prize Taker.*

Barbados Gooseberry. Sim SB. For similar names see *Cape Gooseberry.*

Seedsmen's synonyms. *Ground Cherry,* Ren Sim. *Mexican Tomato,* Sim. *Strawberry,* Ren Sim. *Winter Cherry,* Sim.

Beauty. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Blg Bou Bow Bgg Brk Bgs Bri Brn Bru Bng Buc Bui Bur Brr Brw C&J Cam CE Cle C&B Col CF Cox Crg Crs Cur CA Dlw D&H Del DD Drr Drm Dun Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer Fld Frd Ger Gls Gra Ggy Gry Gfg G&T TG Hns Ham Hde Hrm Hrn Hrs Hrv Hen H&C Hly Hlm Hop Hnt H&P Iml Iow Jac Jer MWJ J&M J&S Jns Kei K&W Ken K&F Kg Koe Kos Kra Lam Lan Lnr Liv JL Loh Mnd Mgd PM Mns Mas Mau May JCM JMM McM Mic Mhl Mls Min MV M&S *Mrs* Mzy Neb Nef Nol NI NK OV Old Pac HP JMP Pir Pne Pnt Ptt Por Pot Pri Pug Qkr Raw Ren Rce Roc Rt Rs RP Sal S&R SC S&F S&B *Shw* S&O Shm Sie Sim Sox Spf Stk SB Stw S&H S&W Tat Tex Thm Thr Til Tpk Trm T&B Vl Vau Vk Vin *Wat* Wea Web W&D Wd Wdr WS Wyg Y&H.

Similar names. Livingston's Beauty, Redfield Beauty, Buist's Beauty, Improved Beauty, Golden Beauty, Hammond's Golden Beauty.

Bedell's Long Island. Entered as *Long Island.*

Beefsteak. *Vau.*

Bell's Enormous, Bell's Satisfaction. Entered as *Enormous* and *Satisfaction.*

Bell's Extra Early. Bel. For similar names see *Extra Early.*

Belmont. Brk Ggy Raw *S&F.*

Similar names. Breck's Belmont.

Best of All. Brk Bdg Bur Drr Fqr Mhl *S&W* Thr Vau W&D *Wea.*

Similar names. Sutton's Best of All, Sutton's Best of All Forcing, Best of All Forcing, Great B. B., Brinton's Best.

Best of All Forcing. Wat W&D. For similar names see *Best of All.*

Big Four Hundred. PM. For similar names see *Number Four Hundred.*

Seedsmen's synonyms. *Ponderosa,* PM.

Bolgiano's Prize Taker. Entered as *Prize Taker.*

Bolgiano's Queen. Blg. For similar names see *Golden Queen.*

Bond's American Purple, Bond's Early Minnesota. Entered as *American Purple* and *Early Minnesota.*

Boston Market. Fqr Raw S&F.

Brandywine. Bgs Frd J&S Lan M&S.

Breck's Belmont. Entered as *Belmont.*

Bright and Early. Del Eas *MWJ* Mhl Ren Vk.

Brinton's Best. Alx Ewg Gra G&T Hlm J&S Mns Neb Rce.

Similar names. See *Best of All.*

Bruce's Dominion Day. Entered as *Dominion Day.*

Buckbee's Beefsteak. Buc.

Similar names. Moore & Simon's Early Beefsteak.

Buckbee's County Fair, Buckbee's Earliest Market, Buckbee's Golden Prize, Buckbee's Snowball, Buckbee's Spot Cash, Buckbee's State Fair. Entered as *County Fair, Earliest Market, Golden Prize, Snowball, Spot Cash,* and *State Fair.*

Buckbee's Tree. Buc. For similar names see *Tree.*

Seedsmen's synonyms. *Station,* Buc.

Buckbee's World's Fair. Buc. For similar names see *World's Fair.*

Buckeye. Lan. For similar names see *Buckeye State.*

Buckeye State. Alx Anb Ar Brd Bkt Bel Brn Buc Bur *Cam CE CF* Crs Cur CA DD Drr Ebr Evr Fer Gra Ggy TG Hrn Hst Hly Hlm H&P Iml Jer MWJ J&M J&S Jns Ken K&F Kg Kos Lnr Liv Lon Mgd PM Mns Mau May JCM JMM M&S Mzy Neb *Nol* OV Old HP Pnt Ptt Pri Ren Rce Roc Rt SC Shw Shm Sim Spf SB S&H Til *Tpk* Vl Vau Vk *Wea* WS.

Similar names. Livingston's Buckeye State, Buckeye.

Buist's Beauty, Buist's Prize Belle, Buist's Trophy. Entered as *Beauty, Prize Belle,* and *Trophy.*

Burbank Preserving. Bur Hse Liv.

Burpee's Climax, Burpee's Combination, Burpee's Early Fordhook Fancy, Burpee's Matchless, Burpee's Noble, Burpee's Success, Burpee's Large Early, Burpee's Quarter Century. Entered as *Climax, Combination, Early Fordhook Fancy, Matchless, Noble, Success, Large Early,* and *Quarter Century.*

Canada. McK Ren. For similar names see *Canada Victor.*

Canada Victor. Bru Brb Crs Eas Emr Ewg Gra Ggy Hrm Kei K&W Liv Pks JMP Pot Rce RP S&F Sim Tpk Trm.

Similar names. Early Canada Victor, Canada, Yellow Victor.

Cape Gooseberry. Alx.

Similar names. Barbados Gooseberry.

Seedsmen's synonyms. *Strawberry,* RE.

Cardinal. Bdg Dlw Ebe Fst Lea Liv MV Rce RP Sal S&F Shm *Sox.*

Century. *Lnr Sim.* For similar names see *Twentieth Century.*

Chalk's Early Jewel. Entered as *Early Jewel.*

Challenge. Mls.

Similar names. Mills' Challenge.

Chemin. *M&S* Ren.

Similar names. Early Chemin, Chemin Market.

Chemin Market. J&S. For similar names see *Chemin.*

Cherry. Brt Buc Ger Ggy Lan LB Liv Prn Sox Stw.

Similar names. See *Red Cherry, Yellow Cherry.*

Cherry Currant. Brt.

Similar names. See *Red Cherry, Yellow Cherry, Red Currant.*

Seedsmen's synonyms. *Grape,* Brt.

Childs' Diadem, Childs' Golden Jubilee, Childs' Picture Rock, Childs' Ruby Queen. Entered as *Diadem, Golden Jubilee, Picture Rock,* and *Ruby Queen.*

Cincinnati Purple. Liv JCM JMM.

Similar names. Bond's American Purple, American Purple.

Cleveland's Advance. Entered as *Advance.*

Climax. Blg Bur.

Similar names. Burpee's Climax.

Climbing. Bel Chl.

Similar names. Giant Climbing, Climbing Orange.

Seedsmen's synonyms. *Mansfield Tree,* Bel.

Climbing Orange. Sal. For similar names see *Climbing.*

Cluster. Lan.

Similar names. Clusterosa Yellow Egg, Extra Early Cluster.

Clusterosa Yellow Egg. J&S. For similar names see *Cluster.*

Columbian Prize. Crs. For similar names see *Golden Prize.*

Combination. Bkt Buc Bur Col Ham *Hlm MWJ May* Old Sal Tem Thr.

Similar names. Burpee's Combination.

Comrade. Ggy S&F.

Conference. Fqr Ggy.

Conqueror. Bgs Crs Emr Hrv MV *Pac* Ren Sal Shm *Sox* SB T&B.

Similar names. Early Conqueror.

Cook's Favorite. Entered as *Favorite.*

County Fair. Buc. For similar names see *World's Fair.*

Cox's Trophy. Entered as *Trophy.*

Cream City. Cur *Vau.*

Creekside Glory. Sim.

Crimson Currant. Iow. For similar names see *Red Currant.*

Crimson Cushion. Anb Brd Bkt Bdg Buc Brr Cle C&B Dlw Drr Dun Elt Ewg Gra Gry G&T Ham Hen H&C Hly Hlm Hse Iow *MWJ* J&S Ken LB Mgd Mns May M&S Neb Pg Rce Roc Sal Shw Shm Sim Spf S&H S&W Tex Thr *Tlh Vl* Vau Vk Wea W&D Wd WS.

Similar names. Henderson's Crimson Cushion, Henderson's Perfected Crimson Cushion, Crimson Robe, Early Crimson, Tait's Early Crimson.

Crimson Robe. Sal. For similar names see *Crimson Cushion.*

Crimson Whirlwind. *Sal.*

Cumberland Early Red. Lan. For similar names see *Cumberland Red.*

Cumberland New Jersey Red. Lan.

Similar names. See *Cumberland Red, New Jersey Red.*

Cumberland Red. Bgs J&S Liv M&S Rce.

Similar names. Cumberland Early Red, Cumberland New Jersey Red.

Currant. Brt Buc Fqr Ggy Lan Pri Stw. For similar names see *Red Currant.*

Seedsmen's synonyms. *Grape,* Fqr.

Democrat. Thr.

Diadem. Chl Ggy.

Similar names. Childs' Diadem.

Dickmann's New Jersey. DD. For similar names see *New Jersey Red.*

Dominion Day. Bru RE.

Similar names. Bruce's Dominion Day.

Dreer's Earliest of All. *Drr.* For similar names see *Earliest of All.*

Duke of York. M&S.

Dwarf Aristocrat. Alx Alr Bak Brd Bkt *Bow* Bgg Brk Bri Brn Bru Buc Bur Brw C&J *CE* CF Cox Crs CA Ebe RE Fmr Fer Frd Gls Gra Ggy TG Hlm H&P J&S Jns Ken Kra Lam *Lur* Liv Man *Mns May* Mic Nef Old Pg *Pnt* Ptt Pot Pri Raw Ren Rce Rim Roc Rs *S&R* S&F Shm Spf SB S&H Thm Til Vau Vk W&D Wdr.

Similar names. Livingston's Dwarf Aristocrat.

Dwarf Champion. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Bow Bgg Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Bur Brr Brw C&J Cam CE Cle C&B Col CF Cox *Crg* Crs Cur CA Dlw D&H Del DD D&C Drr Drw Drm Dun Eas Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fer Fld Frd Ger Gdn Gra Gng Ggy Gry Gfg G&T TG Hns Ham Hde Hrm Hrn Hrs Hrv Hst Hen Hbt H&C Hly Hlm Hop H&P Iml Iow Jac MWJ J&S Jns Kei K&W Ken K&F Kg Koe Kos Kra Lam Lan Lur LB Liv JL Loh Mnd Mgd Man PM Mns Mas Mau May JCM JMM Mic *Mhl* Mls MV M&S Mzy Neb Nol NI NK Pac Pks HP JMP Pir Prn Pne Pnt Ptt Por Pot Pug Qkr Rtk Raw Ren Rce Roc Rt Rs RP *Sal* S&R SC S&F *Shw*

S&O Sie Sim Sox Spf Stk SB Stw S&H S&W Tat Tex Thn Thr Til Trm T&B Vl Vau Vk Wea Web W&D Wer Wll Wd Wdr WS Wyg Y&H.

Similar names. Purple Champion, Red Champion, Dwarf Scarlet Champion, Early Dwarf Champion, Alneer's Dwarf Champion, Livingston's Dwarf Champion, Shumway's Large Champion, Dwarf Champion Cluster, Dwarf Golden Champion, Market Champion, Early Market Champion.

Seedsmen's synonyms. *Tree*, Bow Fer H&P RP.

Dwarf Champion Cluster. Pri. For similar names see *Dwarf Champion.*

Dwarf Cluster. *M&S.*

Dwarf Dandy. *Liv.*

Dwarf Golden Champion. Bak *Bkt* Bur D&H *Hrm* Pnt Rim Sim.

Similar names. See *Dwarf Champion.*

Seedsmen's synonyms. *Yellow Prince*, Bur.

Dwarf Scarlet Champion. Ebe *May* NK Thr Vau.

Similar names. See *Dwarf Champion.*

Dwarf Tree. Gdn. For similar names see *Tree.*

Dwarf Yellow Prince. Liv. For similar names see *Yellow Prince.*

Earliana. *CF D&H* GN Ggy *Hrs Mns* Ren *Ree Sim SB Tlh* Vk *Wea.*

Similar names. Sparks' Earliana.

Earliest in the World. Gng Hly Rt. For similar names see *Earliest of All.*

Earliest Large. *Wer.* For similar names see *Large Early.*

Earliest Market. Buc Roc. For similar names see *Earliest of All.*

Earliest of All. D&C Drr Ebe Ewg Fle Gra GN *Lon* McK Ren Sal SB.

Similar names. Earliest Market, Buckbee's Earliest Market, Maule's Earliest, Landreth's Earliest, Arrington's Earliest, Earliest in the World, Mills' Earliest in the World, Leonard's Earliest in the World, Hammond's Earliest on Earth, Vaughan's Earliest of All, Dreer's Earliest of All, Salzer's Earliest of All, Salzer's Fifty Days the Earliest, Fifty Days the Earliest.

Seedsmen's synonyms. *Early Ruby*, Gra McK Ren. *Extra Early Atlantic*, McK Ren. *Atlantic*, Ewg Gra.

Early Abundance. *M&S.*

Early Acme. Alx Anb Ar Bgg Brn Buc Brw C&J *CE* Crg CA Drm Eic TG Hde *Hlm* Iml J&S Liv JL JCM M&S HP Pir Ree Roe Sim Sox Stw Wlt Wdr.

Similar names. See *Acme.*

Early Advance. Ber Hlm Mau MV Neb Ree *Sox* Y&H.

Similar names. See *Advance.*

Early Atlantic Prize. Crs. For similar names see *Atlantic Prize.*

Early Bermuda. Lan.

Early Bird. Bri Ggy J&S Rs.

Similar names. Red Bird.

Early Canada Victor. Shm. For similar names see *Canada Victor.*

Early Chemin. Bur. For similar names see *Chemin.*

Early Conqueror. Bru Gng Liv Pks Sim Tpk. For similar names see *Conqueror.*

Early Crimson. Tat. For similar names see *Crimson Cushion.*

Early Dwarf Champion. Grw Vau. For similar names see *Dwarf Champion.*

Seedsmen's synonyms. *Tree*, Grw Shw Vau.

Early Eureka. Hlm.

Similar names. Holmes' Early Eureka.

Early Essex Hybrid. *CE* Evr Fer Hrm Iml LB Loh Pri Raw Ree Rce *Y&H.*

Similar names. See *Essex Hybrid.*

Early Favorite. HP. For similar names see *Favorite.*

Early Fordhook Fancy. Bur. For similar names see *Fordhook.*

Early Freedom. Alr Buc *Brr* Col *Dun Gra* Ggy Hen M&S Shm *Spf.*

Similar names. See *Freedom.*

Early Gold Mine. M&S.

Similar names. Sutton's Early Gold Mine.

Early Hathaway Excelsior. Alx. For similar names see *Excelsior.*

Early Imperial. JMP. For similar names see *Imperial.*

Early Jersey. Lan. For similar names see *New Jersey Red.*

Early Jewel. M&S *Nol.*

Similar names. Chalk's Early Jewel.

Early July. Brt.

Early Large Smooth Red. Alx Nef Stk. For similar names see *Large Smooth Red.*

Early Leader. Anb Vk.

Similar names. Vick's Leader.

Early Market. *Lnr.*

Early Market Champion. J&S M&S. For similar names see *Dwarf Champion.*

Early Mayflower. Bgs D&H Fst TG Sal Sim Wat.

Similar names. See *Mayflower.*

Early Melrose. *Hlm.*

Early Michigan. Bow Brn Buc Cox Ebe Fer Fle Gls Gra J&S Lam LB Liv Loh *May* NK Pg Por Pug Ree S&R *Vau.*

Seedsmen's synonyms. *Red Apple,* J&S.

Early Minnesota. Bkt Buc Col Cur Del Fmr *Fld* Gls *Gra* Ggy *Ham* Hrs Iow Kos May JMM NK Ree Sie *S&H Tem* Wer Wll.

Similar names. Bond's Early Minnesota.

Early Optimus. TG. For similar names see *Optimus.*

Early Paragon. *Hlm* J&S M&S *Pac* Shm T&B. For similar names see *Paragon.*

Early Perfection. Alr Hde Liv Rs. For similar names see *Perfection.*

Early Picton. Gng.

Early Purple Advance. Btl Cle. For similar names see *Advance.*

Early Red. Gra Hns. For similar names see *Extra Early.*

Early Richmond. Ger Lan TB.

Similar names. Extra Early Richmond.

Early Ruby. Alr Ar Bai Bel Bgg Brk Bdg Bgs Bru Bng Brr Brw C&J *CE* C&B Crs Drr Ebe Elt RE Gls Gra Gng Ggy Gry Hrs Hen H&C Hly Hlm Hse Kei Liv May Neb NK Pac Pks Poo Pug Ree Rce SC *Shw* Sim SB S&H S&W Thr Vk Wea W&D Wdr Y&H.

Similar names. Ruby, Henderson's Ruby, Childs' Ruby Queen, Shumway's Ruby Queen, Ruby Queen.

Seedsmen's synonyms. *Atlantic,* Gra. *Atlantic Prize,* C&J Drr H&C SC Sim Vk, etc. *Earliest of All,* Gra McK Ren. *Extra Early Atlantic,* McK Ren.

Early Smooth Red. Bui Cle JMP. For similar names see *Large Smooth Red.*

Early Stone. *Bgg.*

Early Tree. *Crg* GN. For similar names see *Tree.*

Eclipse. *Mhl S&F* Thr *Wat.*

Similar names. Eclipse Forcing, Sutton's Eclipse.

Eclipse Forcing. W&D. For similar names see *Eclipse.*

Eichling's Excelsior. Eic. For similar names see *Excelsior.*

Eldorado. J&M Thm.

Enormous. Anb *Bel* Bur Col *CF* Frd Ggy *TG* Ham *Hrs* Hse Iml *MWJ* J&S Liv *Lon* Mgd Mau *May JMM* Pg Rce *Rim* Sal Shw *Sim* Tem Vau *Wat WS.*

Similar names. Maule's Enormous.

Essex Early Smooth. Fqr. For similar names see *Essex Hybrid.*

Essex Hybrid. Bgs Bui Brb Bur Brr Brw C&J C&B CF Cox Fax Ggy TG H&C MWJ K&W Lam Lan Lnr Liv Mau Mzy Neb JMP Ptt S&F *Shw Thm* Vl.

Similar names. Early Essex Hybrid, Essex Early Smooth.

Everbearing. Ewg Kei.

Excelsior. Shw.

Similar names. Purple Excelsior, White's Excelsior Purple, White's Excelsior, Hathaway's Excelsior, Young's Excelsior, Eichling's Excelsior, Early Hathaway Excelsior.

Extra Early. Lan.

Similar names. Extra Early Dwarf, Extra Early Red, Extra Early Market, Bell's Extra Early, Key's Early, Early Red, Farquhar's Faultless Early.

Extra Early Advance. Bur D&C Fst *Gra* Hbt J&S Mas Ree Sox Web Y&H.

Similar names. See *Advance.*

Extra Early Atlantic. McK Ren. For similar names see *Atlantic Prize.*

Seedsmen's synonyms. *Earliest of All*, McK Ren. *Early Ruby*, McK Ren.

Extra Early Cluster. Min. For similar names see *Cluster.*

Extra Early Dwarf. Stk. For similar names see *Extra Early.*

Extra Early Gem. M&S. For similar names see *Gem.*

Extra Early Market. MWJ. For similar names see *Extra Early.*

Extra Early Peerless. M&S.

Extra Early Purple Advance. *Btl* DD Hns Mau. For similar names see *Advance.*

Extra Early Red. Gra Hns. For similar names see *Extra Early.*

Extra Early Richmond. J&M Lan Min. For similar names see *Early Richmond.*

Extra Early Ruby. *Gls.*

Extra Early Tree. May Mls OV HP *Tpk.* For similar names see *Tree.*

Extra Early Trophy. GH M&S. For similar names see *Trophy.*

Farquhar's Faultless Early. Entered as *Faultless Early.*

Faultless Early. Fqr. For similar names see *Extra Early.*

Faust's Americus Hybrid. Entered as *Americus Hybrid.*

Favorite. Alx Alr Bai Brt Btl Bkt Bel Blg Bou Bow Bgg Brk Bdg Bgs Brn Bru Buc Bur Brr Brw C&J Cam CE Cle C&B Col Cox Crs Cur Dlw Del DD Drr Drw Drm Dun Eas Ebe Ebr Eic Elt Emr RE Evr Ewg Fmr Fqr Fst Fer Frd Ger Gls Gra Ggy Gry G&T TG Hns Hde Hrm Hrn Hrs Hrv Hst Hen Hly Hlm Hnt H&P Iow Iml MWJ J&S Jns Kei K&W Kg Lam Lan Lea Lnr LB Liv JL Loh Lon Mnd Mgd Man PM Mns Mas Mau May JCM JMM McM Mhl Min MV M&S *Mrs* Neb Nol NI NK OV Pac JMP Pir Pnt Ptt Por Pot Pri Pug Raw Ree Ren Rce Roc Rs RP Sal S&R SC S&F S&B *Shw* S&O Shm Sim Sox Spf Stk SB Stw S&W Tat Tex TB Thm Thr Thb Tpk Trm T&B Vl Vau Vk Vin Wat Wea W&D Wer Wlt Wd Wdr WS Yng Y&H.

Similar names. May's Favorite, Livingston's Favorite, Cook's Favorite, Sacramento Favorite, Trucker's Favorite, Early Favorite.

Ferris Wheel. Sal.

Similar names. Salzer's Ferris Wheel.

Ferry's Optimus. Entered as *Optimus.*

Fifty Days the Earliest. Sal. For similar names see *Earliest of All.*

Fig. Bdg Fqr Raw S&F.

Similar names. Golden Fig, Yellow Fig, Sumatra Fig, Zealand Fig.

Seedsmen's synonyms. *Pear*, Fqr Raw S&F. *Red Pear*, Bdg.

Fiji Island. Min Nef Vin.

Similar names. Fiji Island Improved.

Fiji Island Improved. Entered as *Fiji Island.*

First Choice. Wdr.

Seedsmen's synonyms. *Fordhook First*, Wdr.

First Early. WS.

Similar names. First of All, Hargest's First of All, May's First of All, Wood's First Early.

First of All. May *Tpk.* For similar names see *First Early.*

Fleming's Mammoth King. Fle. For similar names see *King.*

Fordhook. Ggy K&W Liv Mzy Ptt.

Similar names. Fordhook Fancy, Fordhook First, Fordhook Early, Burpee's Early Fordhook Fancy, Early Fordhook Fancy.

Fordhook Early. Bkt TG *Lam* NK. For similar names see *Fordhook.*

Fordhook Fancy. Bkt Bri Buc Bur Col *Frd* J&S *Mns May McK* Old Ren Sim Tat Thr *Tlh.*

Similar names. See *Fordhook.*

Fordhook First. Brd Bkt *Bri* Bng Buc Brb Bur Brr *CE* Cle Col Crs D&H Frd Gra Ham Hrm Hlm H&P Jer Jns McM Old Por Rce Rt Rs Sal S&R S&F Sim S&H Tat Thr *Til Vl* Vau Vk *Wea* Wdr Y&H.

Similar names. See *Fordhook.*

Seedsmen's synonyms. *First Choice*, Wdr.

Fortune. Bgs J&S.

Four Hundred Mammoth. Fst. For similar names see *Number Four Hundred.*

Seedsmen's synonyms. *Ponderosa*, Fst.

Freedom. Brd Bkt Blg Bdg C&B CF *Drr Drw* Ewg Ggy *Gry Hrm* Hen *H&C* J&S *Jns K&W Mns May* Rce *Shw Sie* Sim S&H Thr *Tlh* Vau Vk W&D.

Similar names. Henderson's Early Freedom, Early Freedom.

French Marvel. *J&S.*

Frogmore Forcing. Vau Wat W&D.

Futurity. *GN.*

Garden King. Shm. For similar names see *King.*

Gem. Bdg.

Similar names. Extra Early Gem, Moore & Simon's Extra Early Gem, Perfect Gem.

Seedsmen's synonyms. *Red Cherry*, Bdg.

General Grant. Bgs *CE* Crs Emr Gra Gry Rce Sal.

German Market. *Wer.*

Giant Climbing. Evr Vl. For similar names see *Climbing.*

Giant Everbearing. GN.

Giant Prize. *Mls.*

Giant Scarlet Ground Cherry. Iow.

Giant Seedling. CCo Frd *Rce.*

Similar names. Logan's Giant Seedling.

Giant Tree. *Alr* May.

Golden Ball. Anb *CE* TG Liv JL Rce.

Similar names. Livingston's Gold Ball, Ivory Ball.

Golden Beauty. Fld McM. For similar names see *Beauty.*

Golden Dome. Sal.

Golden Fig. Chl. For similar names see *Fig.*

Golden Gage. M&S. For similar names see *Green Gage.*

Golden Husk. GN Liv Shm. For similar names see *Husk.*

Golden Jubilee. Chl.

Similar names. Childs' Golden Jubilee.

Golden Nugget. *Iow.*

Golden Prize. Buc Roc.

Similar names. Mammoth Prize, Buckbee's Golden Prize, Columbian Prize.

Golden Queen. Alx Ar Bak Brd Brt Btl Bkt Bel Ber Bow Brk Bgs Brn Bru Bng Bur Brr Brw C&J *CE* Col CF Cok Crs CA D&C Drr Elt Evr Fmr Fqr Fst Fer Frd Gdn Gry Grw TG Ham Hrs Hst Hlm Hse Iml Iow Jer MWJ J&M Jns Ken Kg Kra Lam Lnr LB Liv JL Loh Man Mas Mau May JCM JMM McM Mls MV Neb NK Pac Pg HP Ptt Poo Por Pot Raw Ree Ren Rce Rt RP S&R SC S&F

Shw Shm Sim Sox Spf SB Stw S&H *S&W* Thr *Tlh* Tpk T&B Vl Vau Vk Wea Web Wll Wlt Wd Wdr WS.

Similar names. Table Queen, Livingston's Golden Queen, Queen, Red Queen, Bolgiano's Queen, Childs' Ruby Queen, Shumway's Ruby Queen, Minnesota Queen, Red Table Queen.

Seedsmen's synonyms. *Large Round Yellow*, SC. *Large Smooth Yellow*, Sim. *Queen of All the Yellows*, CA Liv Rs. *Queen of the Yellows*, Vk. *Sunrise*, Bur Crs G&T Ren. *Yellow Trophy*, Wd WS.

Golden Strawberry. Frd M&S. For similar names see *Strawberry*.

Seedsmen's synonyms. *Ground Cherry*, Frd. *Husk*, Frd. *Winter Cherry*, Frd.

Golden Sunrise. C&B Hen. For similar names see *Sunrise*.

Golden Trophy. Alr *Bel* Bui Cle Crs Cur Dlw Ebe Gry TG Ham Lan *Mel* MV Nef JMP Prn Rce Sox S&W TB Tpk Trm Wer.

Similar names. See *Trophy*.

Seedsmen's synonyms. *Large Round Yellow*, Pnt.

Gold Mine. *Nol.*

Grape. Brt Fqr Lan Stw.

Seedsmen's synonyms. *Cherry Currant*, Brt. *Currant*, Fqr.

Great B. B. Blg J&S. For similar names see *Best of All*.

Great Mississippi. Chl.

Green Gage. Lan.

Similar names. Golden Gage.

Seedsmen's synonyms. *Ivory Ball*, Lan.

Griffith & Turner Co.'s World's Fair. G&T.

Similar names. See *World's Fair*.

Ground Cherry. Alr Bai *Btl Bow* Bru Chl Col Crs Dlw Ewg Fqr Fer Fld Ger Ggy Grw Hrs RHJ *Kra* Lam *Lnr* LB JL Mau McK Mls *MV* NK OV Pac Pks Ptt Por Pug Raw Ren RP S&R S&F S&O Shm Sim Sox Spf Vau Vin Web Wll.

Similar names. See *Red Cherry*, *Yellow Cherry*.

Seedsmen's synonyms. *Barbados Gooseberry*, Ren Sim. *Golden Strawberry*, Frd. *Husk*, Bkt Buc Fer Frd Hrs JL, etc. *Mexican Tomato*, Sim. *Strawberry*, Brt Bkt Buc Ewg Fqr Raw, etc. *Winter Cherry*, Brt Bkt Buc Frd Hrs Sim.

Hammond's Dwarf Tree. Ham. For similar names see *Tree*.

Hammond's Earliest on Earth. Ham. For similar names see *Earliest of All*.

Hammond's Golden Beauty. Ham. For similar names see *Beauty*.

Hammond's Mammoth. Ham.

Hammond's Prolific Bush. Entered as *Prolific Bush*.

Hammond's Tall Tree. Ham. For similar names see *Tree*.

Hargest's First of All. Hlm. For similar names see *First Early*.

Hathaway's Excelsior. Bgs Liv Min Tpk Vk. For similar names see *Excelsior*.

Hawkeye. JL.

Similar names. Livingston's Hawkeye.

Hawkins' Early Large Smooth Red. Haw.

Similar names. See *Large Smooth Red*.

Henderson's Crimson Cushion, Henderson's Early Freedom, Henderson's Perfected Crimson Cushion, Henderson's Ponderosa, Henderson's Ruby. Entered as *Crimson Cushion*, *Early Freedom*, *Crimson Cushion*, *Ponderosa*, and *Ruby*.

Holmes' Early Eureka, Holmes' Early Melrose, Holmes' Royal Red, Holmes' Supreme Forcing. Entered as *Early Eureka*, *Early Melrose*, *Royal Red*, and *Supreme Forcing*.

Honor Bright. Alx Alr Ar Bak Btl Bkt *Bel Blg Bgg* Brk Brn Bru Buc Bur Col CF Crs Cur CA Dlw Del Drr Drw Ebr Eic RE Ewg Fer Frd *Gls* Gra Ggy Gry G&T Grw TG Ham Hrs Hen Hlm H&P MWJ J&M J&S *Jns* Kra Lnr LB Liv JL

Mns Mau May *JMM* M&S Mzy Pac Pg Pnt Ptt Raw Ren Rce Roc Sal Shw Shm Sim *Spf* SB S&H S&W Thm Thr *Tlh* Til *Vl* Vau Vk Wea Wll.

Similar names. Livingston's Honor Bright, Improved Honor Bright, Honor Bright Purple Fruit, Honor Bright Dwarf Aristocrat, Honor Bright Purple Potato Leaf, Honor Bright Red Potato Leaf, Honor Bright Purple Dwarf Potato Leaf, Honor Bright Red Dwarf Potato Leaf.

Honor Bright Dwarf Aristocrat. Liv. For similar names see *Honor Bright.*

Honor Bright Purple Dwarf Potato Leaf. Liv.

Similar names. See *Honor Bright.*

Honor Bright Purple Fruit. Liv. For similar names see *Honor Bright.*

Honor Bright Purple Potato Leaf. Liv. For similar names see *Honor Bright.*

Honor Bright Red Dwarf Potato Leaf. Liv. For similar names see *Honor Bright.*

Honor Bright Red Potato Leaf. Liv. For similar names see *Honor Bright.*

Horsford's Prelude. Entered as *Prelude.*

Hubbard's Curled Leaf. Crs.

Hundred Day. Sal Tpk.

Husk. Alr *Btl* Bkt *Bow* Bur Brw C&J Dlw DD Fer Grw Hrs Hrv RHJ Lam *Lnr* LB Liv JL May *JMM* NK OV Pac Pks Por Pug RP S&R S&O Shm Sox Spf Stw Vau Vk Vin.

Similar names. Purple Husk, Yellow Husk, Golden Husk, Winter Husk.

Seedsmen's synonyms. *Golden Strawberry,* Frd. *Ground Cherry,* Buc Bkt Fer Frd Hrs JL Lam, etc. *Strawberry,* Bkt Buc Bur C&J Emr Hrv, etc. *Winter Cherry,* Bkt Bur Emr Frd Liv Thr, etc.

Ignotum. *Alr* Bow Bgs Brn Bru Buc Brb Bur Brr Brw C&J *CE* Chl Cle C&B *CF* Cok Crs Drw Ebe Eic RE Ewg Frd Ger Gls Gra Gng Ggy TG Ham Hrs Hlm Iml J&M J&S Lam Lan Liv Mnd Mau May JCM *McK* MV Mzy Neb OV Old Pac Prn Por Pri Raw Ree Ren Rce Roc Rt S&R S&O Shm Sim Sox SB Tat Thm Thr Vl Vk.

Similar names. Shumway's Ignotum.

Imperial. Alr Bkt Bru Buc Brb Bur Brw Col CF Crs Cur D&H Drr Eic Elt RE Fld Frd Gra Gng Ggy G&T TG Ham Hrs Hbt Hse J&M J&S Kg Lnr Liv Mau May JCM JMM McK Mhl Mls M&S Mzy Neb Nol NK OV Old Pne Poo Por Raw Ren Rce Roc Rs S&R *Shw* S&O Shm Sim Spf SB Thr *Tlh Tpk* Vau Vk Web Wd WS.

Similar names. Early Imperial, Maule's Imperial.

Improved Acme, Improved Atlantic Prize, Improved Beauty, Improved Extra Early Tree, Improved Ground Cherry, Improved Honor Bright, Improved Large Red Trophy, Improved Large Trophy, Improved Large Yellow, Improved Lorillard Forcing, Improved Mayflower, Improved Peach, Improved Red Trophy, Improved Tree, Improved Trophy, Improved Yellow Ground Cherry. Entered as *Acme, Atlantic Prize, Beauty, Extra Early Tree, Ground Cherry, Honor Bright,* etc.

Ivory Ball. Lan. For similar names see *Golden Ball.*

Seedsmen's synonyms. *Green Gage,* Lan.

Japanese Tree. M&S. For similar names see *Tree.*

Kansas Standard. Anb Btl Crs.

Key's Early. Pac. For similar names see *Extra Early.*

King. Kg.

Similar names. Fleming's Mammoth King, Shumway's Garden King, King of the Earlies, Garden King.

King Humbert. Drr Koe.

King of the Earlies. Eic Haw Stk. For similar names see *King.*

Klondike. Mls.

Kuttawa Dwarf Tree. CCo Evr. For similar names see *Tree.*

La Crosse Seedling. Sal.

Similar names. Salzer's La Crosse Seedling.

Landreth's Earliest. Lan. For similar names see *Earliest of All.*

Large Champion. Shm. For similar names see *Dwarf Champion.*

Large Early. Bur.

Similar names. Burpee's Large Early, Earliest Large.

Large Golden Yellow. Bdg. For similar names see *Large Yellow.*

Large Red California. Vin.

Seedsmen's synonyms. *Fiji*, Vin.

Large Red Trophy. Buc Mns. For similar names see *Trophy.*

Large Rose Peach. Alx Liv. For similar names see *Peach.*

Large Round Yellow. DD Pnt SC. For similar names see *Large Yellow.*

Seedsmen's synonyms. *Golden Queen*, SC. *Golden Trophy*, Pnt.

Large Smooth Red. Crg Min Pac.

Similar names. Early Large Smooth Red, Hawkins' Early Large Smooth Red, Early Smooth Red, Smooth Red.

Large Smooth Yellow. Ebe Rce Sim. For similar names see *Large Yellow.*

Seedsmen's synonyms. *Golden Queen*, Sim.

Large Trophy. CF Mv Roc Shm. For similar names see *Trophy.*

Large Yellow. Brn Bui *Eic* RE Ewg Gra TG Kei Mzy Pri Rce Stk S&W Tat W&D.

Similar names. Large Smooth Yellow, Improved Large Yellow, Large Round Yellow, Large Golden Yellow.

Lemon Blush. *Bgg* Frd Iow *MWJ* May Mzy Thm Thr.

Similar names. Thorburn's Lemon Blush.

Leonard's Earliest in the World. Hly. For similar names see *Earliest of All.*

Liberty Bell. Bgs Frd *Gra* J&S Liv Rce Spf.

Livingston's Acme, Livingston's Beauty, Livingston's Buckeye State, Livingston's Dwarf Aristocrat, Livingston's Dwarf Champion, Livingston's Dwarf Yellow Prince, Livingston's Earliest Perfection, Livingston's Early Acme, Livingston's Early Paragon, Livingston's Early Perfection, Livingston's Favorite, Livingston's Golden Ball, Livingston's Golden Queen, Livingston's Hawkeye, Livingston's Honor Bright, Livingston's Large Rose Peach, Livingston's Magnus, Livingston's Paragon, Livingston's Peach, Livingston's Perfection, Livingston's Potato Leaf, Livingston's Royal Red, Livingston's Stone, Livingston's Trophy, Livingston's Yellow Prince. Entered as *Acme, Beauty, Buckeye State, Dwarf Aristocrat, Dwarf Champion*, etc.

Logan's Giant Seedling. Entered as *Giant Seedling.*

Lohrman's Acme. Entered as *Acme.*

Long Island. Fmr *Iml MWJ* Wd.

Similar names. Bedell's Long Island.

Long Keeper. Bai Buc Bur *CE* Crs Del DD Ebr Evr Hst *MWJ* J&S Kg Kra Liv Mau Mhl Mls Nol Rce Roc S&F Shm Thr Vk Vin.

Similar names. Thorburn's Long Keeper.

Longstreth's Golden Glory. Lon. For similar names see *Salzer's Golden Glory.*

Lorillard. Brt *Bkt* Bdg Bri C&B Cox Crs Drr Ebe Elt Fqr Gry *Hrm Hen* Hlm J&S *K&W* Liv Mnd Mau May Mhl Mzy Nol Raw *Rce* Sal S&F Sim S&W Thr *Til* Vk Vin.

Similar names. Lorillard Forcing, Improved Lorillard Forcing.

Lorillard Forcing. Wat W&D. For similar names see *Lorillard.*

McMillan's Royal Red. Entered as *Royal Red.*

Magnus. Alr Brd *Bkt* Bri *Brn* Buc Bur Brw C&J Col *CF Dlw* D&H Drr Ebe Ebr Eic RE Evr Fqr Fer Frd Gng Ggy TG Hrn Hrs Hen *H&C* Hlm *MWJ* J&S K&F

Lnr LB Liv JL Mgd Mns Mau *May JCM* JMM Mhl M&S Mzy Nol *Pir Pne* Pnt Ptt Pot Raw *Rce* Rim Sal Shw *Shm* Sie Sim Spf SB S&H S&W Tem Tex *Tih* Vau *Vk Wat* Wea.

SIMILAR NAMES. Livingston's Magnus.

Majestic. Bui.

Mammoth Crimson. *Kg.*

Mammoth Peach. Ar. For similar names see *Peach.*

Mammoth Prize. Buc Mls. For similar names see *Golden Prize.*

SEEDSMEN'S SYNONYMS. *Mansfield Tree,* Buc.

Mammoth Tree. Ar. For similar names see *Tree.*

Mammoth Yellow Ground Cherry. *Iow.*

Mansfield Mammoth Tree. Ar May HP. For similar names see *Tree.*

Mansfield Tree. Bel Buc *CE* DD Hst Mau Pnt Rce S&O.

SIMILAR NAMES. See *Tree.*

SEEDSMEN'S SYNONYMS. *Climbing,* Bel. *Mammoth Prize,* Buc.

Mansfield Wonderful Tree. *Shw.* For similar names see *Tree.*

Market Champion. S&O. For similar names see *Dwarf Champion.*

Marvel. Drr.

Maryland Pride. Mns.

Matchless. Alx Bai *Btl* Bkt Bel *Ber* Blg Brn Bru Bng Buc Bui Bur Brw CE Col CF Del DD *Drr* Ebr Evr Fmr Fst Fer *Fld* Frd Gls *Gfg* Grw Ham *Hrn* Haw Hbt Hlm Hop Hnt Iow MWJ J&M J&S Jns K&F Kg Kra Lam Lnr Liv Mns Mau May *McK* McM Mhl Mls MV M&S NK OV Pg Pnt Qkr Ren Rce Rim Roc Sal Shw S&O Shm Sox Spf SB Thr Thb Til *Tpk Trm* Vl Web W&D *Wer* Wll Wd WS Wyg.

SIMILAR NAMES. Burpee's Matchless.

Maule's Earliest. *Fld* Ham Mau. For similar names see *Earliest of All.*

Maule's Enormous, Maule's Imperial. Entered as *Enormous* and *Imperial.*

May's Favorite. Entered as *Favorite.*

May's First of All. May. For similar names see *First Early.*

Mayflower. Bel Bru Bur Cox Crs D&H Drr Gry Liv Mhl Pot Ren Rce S&F SB.

SIMILAR NAMES. Improved Mayflower, Early Mayflower, Pearce's Mayflower, Mayflower Forcing.

Mayflower Forcing. Wat. For similar names see *Mayflower.*

Meteor. Koe.

Mexican. Sim.

SEEDSMEN'S SYNONYMS. *Barbados Gooseberry,* Sim. *Ground Cherry,* Sim. *Strawberry,* Sim. *Winter Cherry,* Sim.

Michell. RE.

Mikado. Alx Alr Ar Bai Bdg Bgs Brn Bru Buc Bui Bur Brw C&J Cam CE Cle C&B Col CF Cox Crs Cur D&H Del DD Drm Ebr Elt Evr Ewg Fer Frd Ger Gls Gra Ggy Grw TG Ham Hrv Hst Hen Hop Hnt *MWJ* J&S Kei Kra Lea Lnr LB Liv Mnd Man May JCM JMM Mhl Mls MV Mzy Neb OV Pac JMP Prn Ptt Qkr Ren Rce Roc RP Sal S&O Shm Sim Sox Spf SB S&W Tat Thr *Tpk* Trm T&B Vau Vk Vin Wat Wea Web W&D Wdr Wyg.

SIMILAR NAMES. Red Mikado, Pink Mikado.

SEEDSMEN'S SYNONYMS. *Maule's Sixteen Hundred Dollar,* Buc. *Potato,* Buc. *Turner's Hybrid,* Bur C&J Cox Fer Ggy J&S, etc.

Mills' Challenge. Entered as *Challenge.*

Mills' Earliest in the World. Mls. For similar names see *Earliest of All.*

Minnesota Queen. May OV *Tpk.* For similar names see *Golden Queen.*

Monarch. Vin.

Money Maker. Bri Gfg J&S Lan McM.

Monster. *LB.*

Monstrous Number Four Hundred. Bur Vin.

Seedsmen's synonyms. *Ponderosa*, Bur.

Moore's Mammoth Tree. Alx. For similar names see *Tree*.

Moore's Tree. McM. For similar names see *Tree*.

Moore's Triumph. Entered as *Triumph*.

Moore & Simon's Early Beefsteak. M&S.

Similar names. See *Buckbee's Beefsteak*.

Moore & Simon's Extra Early Gem. M&S. For similar names see *Gem*.

Morning Star. Sal.

Multicolor. *Liv.*

New Century. Blg *Fmr May*. For similar names see *Twentieth Century*.

New Jersey Red. Bai.

Similar names. Thorburn's New Jersey, Dickmann's New Jersey, Cumberland New Jersey Red, Red Early Jersey, Early Jersey.

New York. Ebr Tat.

Similar names. Thorburn's New York.

Niagara. *Bru.*

Nicholson. Fqr.

Nineteen Hundred and Two. *Frd.*

Noble. Bur.

Similar names. Burpee's Noble.

Nolte's Earliest. *Fer.*

Non Plus Ultra. Hly.

Northern Light. GN.

Number Fifty-One. *GN.*

Number Four Hundred. Alr Brd Buc Bur Ham J&M Neb Roc WS.

Similar names. Four Hundred Mammoth, Big Four Hundred.

Seedsmen's synonyms. *Henderson's Ponderosa*, Buc Neb. *Ponderosa*, Alr Brd Ham J&M WS Wd.

Optimus. *Anb* Bow Bgs Brn Bru Buc CE Cle Crs D&H Del Ebe Fer Ggy Hrs Hst Lam *Lnr* LB Liv May McM OV Pac JMP Por Rce Roc RP S&R S&O Shm Sim Sox SB Vin Web Wyg.

Similar names. Early Optimus, Ferry's Optimus.

Paragon. Alx Alr Ar Brd Btl Blg Bgs Brn Bru Buc Bui Bur CE Cle C&B CF Cox Crs CA Dlw Drr Ebe Eic Emr Fst *Fld Frd* Ggy Gry G&T Grw TG Hns Ham Hde Hrm Hrs Hrv Hlm MWJ J&M K&W Kg Lan Lea Liv JL PM Mns Mau May McM Mhl Min Neb Nef Nol JMP Pnt Pug Raw Ren Rce Roc RP Sal S&F S&O Spf Stk Tat Thm Thr Trm Vl Vau Vk Wlt Wd Wdr.

Similar names. Early Paragon, Livingston's Early Paragon, Livingston's Paragon.

Seedsmen's synonyms. *Queen*, Bui.

Paramount. D&H.

Peach. Alr Brt Brn Bru Buc Bur Brr Chl C&B Col CF Crs Cur Dlw Drm Eas Evr Ewg Fmr Fqr Fst Fer *Fld* Gdn Gra Ggy Gry TG Ham Hrs Hen Hop MWJ J&M J&S Kei Lan Lnr LB Loh Mau May JCM JMM Mls MV M&S Mzy Neb NI HP Pir Pnt Ptt Pot Ree Ren Rce Sal S&F Shm Sim Sox *Spf* S&H Tat Vl Vk Vin Wll Wdr.

Similar names. Livingston's Peach, Improved Peach, Mammoth Peach, Purple Peach, Red Peach, Yellow Peach, Rose Peach, Large Rose Peach, Livingston's Large Rose Peach, Sutton's Peachblow, Peachblow.

Peachblow. Fqr. For similar names see *Peach*.

Pear. Bak Btl Ber Bng Buc *Bur* Dlw *Ebr* RE Ewg Fqr *Gra* TG Ken Liv Min Pac Pne Raw Rt S&F Shm Sox Tat Wll WS.

Similar names. See *Red Pear*.

Seedsmen's synonyms. *Fig*, Fqr Raw S&F.

Pearce's Princess, Pearce's Mayflower. Entered as *Princess* and *Mayflower.*

Pepper's Prolific Forcing. Entered as *Prolific Forcing.*

Perfect Gem. Sal. For similar names see *Gem.*

Perfection. Alx Alr Anb Ar Bai Brd Btl *Bkt* Bel Ber Bou Bow Bgg Brk Bdg Bgs Brn Bru Buc Bui Brb Bur Brr Brw C&J Cam CE Cle C&B Col CF Cox Crs Cur Dlw Del DD Drr Drm Dun Ebe Ebr *Eic* Elt Emr RE Evr Ewg Fmr Fqr Fst Fax Fer *Fld* Frd Ger Gls Gra Gng Ggy Gry Gfg TG Hns Ham Hde Hrm Hrs Hst Hen H&C Hly Hlm Hop Hnt H&P Iow MWJ J&M J&S Jns K&W Ken Kg Koe Kra Lam Lan Lea Lnr LB Liv JL Loh Mnd Mgd Man PM Mns Mas Mau May JCM JMM McM Mhl Mls Min MV M&S *Mrs* Mzy Neb Nol NI OV Old Pac Pg HP JMP Pir Prn Pne Pnt Poo Por Pot Pri Pug Qkr *Rtk* Raw Ren Rce Roc RP S&R SC S&F S&B *Shw* Shm Sim Sox Spf Stk SB Stw S&H S&W Tat *Tem* Tex TB Thm Thr Tlh Tpk Trm T&B Vl Vau Vk Wat Web W&D Wer Wd Wdr WS Wyg Y&H.

Similar names. Livingston's Perfection, Livingston's Early Perfection, Livingston's Earliest Perfection, Early Perfection.

Picture Rock. Chl.

Similar names. Childs' Picture Rock.

Pink Mikado. Drr. For similar names see *Mikado.*

Seedsmen's synonyms. *Turner's Hybrid*, Drr.

Plentiful. Ebe Ren.

Plum. Brn Buc Bui Crs Fqr Liv M&S. For similar names see *Yellow Plum.*

Ponderosa. Alx Air Ar Bai Brd Bkt Bel Ber *Blg Bgg* Brk Bdg Bri Brn Bru Buc Bui Brb Bur Brw C&J Cam CE Chl Cle C&B Col *CF* Cox Crg Crs Cur Del DD D&C Drr Drw Eas Ebe Ebr Eic Emr RE Ewg Fmr Fqr Fst Fld Frd Ger Gls Gra Gng Ggy G&T Grw TG Ham Hrm Hrv Hst Hen H&C Hly Hlm Hop Hse Hnt H&P *Iow* Jac MWJ J&M J&S Kei Ken K&F Kg Kra *Lam* Lan Lnr Liv *Loh* Mnd Man PM *Mns* Mas *Mau* May JCM JMM McM Mel Mhl Mls MV Mzy Neb Nef Nol NI NK Old Pac Pg HP JMP Prn Pne Pnt Ptt Poo Pot Pri Qkr Raw Ree Ren Rce Roc Rs RP Sal S&F Shw S&O Shm Sim Sox Spf Stk SB Stw S&H S&W Tat Tex Thm Thr T&B Vl Vau Vk Wea Web W&D Wer Wd Wdr WS Wyg Y&H.

Similar names. Henderson's Ponderosa.

Seedsmen's synonyms. *Number Four Hundred*, Buc Neb Brd Alr Ham J&M, etc. *Big Four Hundred*, PM. *Mammoth Four Hundred*, Fst. *Monstrous Number Four Hundred*, Bur.

Potato Leaf. Buc J&S Liv JL Rce SB Web.

Similar names. Livingston's Potato Leaf.

Seedsmen's synonyms. *Maule's Sixteen Hundred Dollar*, Buc. *Mikado*, Buc. *Turner's Hybrid*, Buc.

Potomac. Ggy Hrs.

Prelude. Ebe Fst Rce.

Similar names. Horsford's Prelude.

President Cleveland. Fqr S&F.

Princess. D&H *Liv.*

Similar names. Pearce's Princess.

Princess of Wales. *S&F.*

Prize Belle. Bgs Bui Gdn.

Similar names. Buist's Prize Belle.

Prize Taker. G&T Hlm PM Mns.

Similar names. Baltimore Prize Taker, Bolgiano's Prize Taker, Prize Winner.

Prize Winner. G&T. For similar names see *Prize Taker.*

Prolific Bush. Ham.

Similar names. Hammond's Prolific Bush.

Prolific Forcing. Wat.

Similar names. Pepper's Prolific Forcing.

Puritan. Ggy Raw S&F.

Similar names. Rawson's Puritan.

Purple Advance. Hlm. For similar names see *Advance.*

Purple Champion. D&H. For similar names see *Dwarf Champion.*

Purple Cluster. *Stk.*

Purple Excelsior. Trm. For similar names see *Excelsior.*

Purple Gem. *Nol.*

Purple Husk. Anb *CE* Ebe Fmr Iow Liv JL Rce Shm.

Similar names. See *Husk.*

Purple Peach. *Buc* D&H Frd Liv Roc Spf SB. For similar names see *Peach.*

Purple Strawberry. Frd. For similar names see *Strawberry.*

Quarter Century. Bur Col *Ham MWJ J&S* Liv *Mns Mau Rce Tlh Wat.*

Similar names. See *Twentieth Century.*

Queen. Bui G&T J&S PM Mns M&S. For similar names see *Golden Queen.*

Seedsmen's synonyms. *Paragon*, Bui.

Queen City. *JCM.*

Quick Sure. Bur Drr Frd J&S *Wea.*

Rawson's Puritan. Entered as *Puritan.*

Red Apple. J&S.

Similar names. White Apple.

Seedsmen's synonyms. *Early Michigan*, J&S.

Red Bird. Cok. For similar names see *Early Bird.*

Red Champion. D&H. For similar names see *Dwarf Champion.*

Red Cherry. Bai Brd Btl *Bkt* Bow Brk Bdg Brn Bru *Buc* Bur CE Cle C&B Crs Cur Dlw DD Elt Emr RE Evr Fmr Fqr Fer Gls Gry Grw TG Hrm H&C *Hlm* H&P J&S Jns Kei K&W Ken Lam Liv Mnd May JCM JMM McK Mhl MV M&S Neb Nef NI OV Pac Pks Pnt Ptt Poo Pot Raw Ree Ren Rce SC S&F Sox Spf SB Tat Tex Thr Trm T&B Vl Vau Vk Vin *Wea* Wer Wll Wdr.

Similar names. Cherry, Winter Cherry, Ground Cherry, Improved Ground Cherry, Small Red Cherry.

Seedsmen's synonyms. *Gem*, Bdg.

Red Cross. Hrm K&W S&F.

Red Currant. Brd *Buc* Cle Crs DD Liv Mzy Rce Sal Spf SB Thr Vau.

Similar names. Small Red Currant, Currant, Crimson Currant.

Red Early Jersey. Stw. For similar names see *New Jersey Red.*

Redfield Beauty. *Cam* Hst. For similar names see *Beauty.*

Red Granite. Sal.

Red Mikado. Drr Mhl. For similar names see *Mikado.*

Red Peach. Brk Hst H&P Ren Sox Thr *Vl Wea.* For similar names see *Peach.*

Red Pear. *Btl* Bow Brk Bdg Bru *Buc* Bui Bur CE C&B Cox Crs Cur Dlw DD Eas Elt Evr Fer Gls G&T Hst Hbt Hlm H&P Lam Lan LB Liv Mgd Mns Mas Mau May JMM McK Min MV M&S Nef NI Pnt Ren Rce Roc Shw S&O *Sox Spf* Stw S&H Tex TB Thr Til Vl Vk *Wea* Web.

Similar names. Yellow Pear, Pear.

Seedsmen's synonyms. *Fig*, Bdg. *Red Plum*, M&S.

Red Plum. *Btl Bkt Buc* Cle Crs Gng Kei *May* Mzy Roc S&O Sie Thr Trm Wdr.

Similar names. See *Yellow Plum.*

Seedsmen's synonyms. *Red Pear*, M&S.

Red Queen. Crs Liv. For similar names see *Golden Queen.*

Red Table Queen. TG. For similar names see *Golden Queen.*

Red Trophy. Ar Bgs Cle Ham Man Web. For similar names see *Trophy.*

Rosalind. Ebr Thr *Vau.*

Similar names. Thorburn's Rosalind.

Rose Peach. *Buc* D&H Roc. For similar names see *Peach.*

Royal Colors. *Liv.*

Royal Red. Alr Ar Brd Btl Brk Bru Buc Bur Brw *CE* Cle Col Cox Crs Cur DD Drr RE Ewg Fmr Fer Frd Ger Gra G&T TG Hns Ham Hde Hrm Hst Hlm Hop J&M J&S K&W Kg Lan Lnr LB Liv JL Lon Mgd Man Mau *May JMM* McM Mhl MV NK Pg HP Pir Por Pri Raw Ren Rce Roc Sal S&R S&B Sim Sox Spf SB *Tem* Thm Thr *Trm* Vau Vk Wea Yng.

Similar names. McMillan's Royal Red, Livingston's Royal Red, Holmes' Royal Red.

Ruby. Del TG Jns Pri AGT. For similar names see *Early Ruby.*

Seedsmen's synonyms. *Atlantic Prize,* Jns.

Ruby Queen. Chl Shm. For similar names see *Early Ruby.*

Sacramento Favorite. Pac. For similar names see *Favorite.*

Salzer's Crimson Robe, Salzer's Earliest of All, Salzer's Ferris Wheel, Salzer's Fifty Days the Earliest, Salzer's La Crosse Seedling, Salzer's Shipper's Delight. Entered as *Crimson Robe, Earliest of All, Ferris Wheel, Fifty Days the Earliest, La Crosse Seedling,* and *Shipper's Delight.*

Salzer's Giant Tree. Sal. For similar names see *Tree.*

Salzer's Golden Glory. Sal.

Similar names. Longstreth's Golden Glory.

Satisfaction. *Bel.*

Scarlet Stone. Bdg Ebe. For similar names see *Stone.*

Scovill's Hybrid. Bru Crs Ebe *Lnr* Rce.

Shah. J&S.

Shamander. Koe.

Shenandoah. *Tpk.*

Shipper's and Canner's Choice. *Ham.*

Shipper's Delight. Sal.

Similar names. Salzer's Shipper's Delight.

Shumway's Garden King, Shumway's Ignotum, Shumway's Large Champion, Shumway's Ruby Queen. Entered as *Garden King, Ignotum, Large Champion,* and *Ruby Queen.*

Silver Egg. *Mau.*

Simmers' Stone. Entered as *Stone.*

Small Red Cherry. Hlm Sim. For similar names see *Red Cherry.*

Small Red Currant. Sim. For similar names see *Red Currant.*

Smooth Red. May Trm. For similar names see *Large Smooth Red.*

Snowball. Buc Roc.

Similar names. Buckbee's Snowball.

Sparks' Earliana. *Buc* Bur *Fmr* J&S *McK M&S Shw Tat* Vau Vk *Wat.*

Similar names. See *Earliana.*

Spot Cash. Buc Roc.

Similar names. Buckbee's Spot Cash.

State Fair. Buc. For similar names see *World's Fair.*

Station. Buc Chl Crs May Shm Sox Thr.

Similar names. Station Tree, Upright Station Tree.

Seedsmen's synonyms. *Buckbee's Tree,* Buc. *Tree,* Sox.

Sterling. *Wat.*

Sterling Castle. *Elt.*

Stone. Alx Alr Anb Ar Bai Brd Brt Btl Bkt Bel Ber Blg Bow Brk Bdg Bgs Bri Brn Bru Bng Buc Bui Brb Bur Brr Brw C&J Cam CE Cle C&B Col CF Cox

Crg Crs Cur CA Dlw Del DD Drr Drw Drm Dun Ebe Ebr Eic Elt RE Evr Ewg Fmr Fqr Fst Fer Fld Frd Ger Gls Gra Gng Ggy Gry Gfg G&T Grw TG Hns Ham Hde Hrm Hrn Hrs Hrv Hst Hen Hbt H&C Hly Hlm Hop Hse Hnt H&P Iow Iml Jac MWJ RHJ J&M J&S Jns K&W Ken Kg Kos Kra Lam Lan Lnr Liv JL Loh Mgd Man PM Mns Mas Mau May JCM JMM *McK* McM Mel Mhl MV M&S Mrs Mzy Neb Nol NK OV Old Pac Pg HP JMP Pir Prn Pne Pnt Ptt Por Pot Pri Qkr Rtk Raw Ree Ren Rce Rim Roc Rt Rs S&R SC S&F S&B Shw S&O Shm Sie Sim Sox Spf Stk SB Stw S&H S&W Tex TB Thm Thr *Tlh* Til *Tpk* Trm T&B Vl Vau Vk Wat Wea Web W&D Wer Wd WS Wyg Yng Y&H.

Similar names. Scarlet Stone, Alexander's Stone, Simmers' Stone, Livingston's Stone.

Strawberry. Alr Bai Brt Bkt Bel Brk Bdg Bru Buc Bur Brw C&J *CE* Col Crs Cur D&H DD Elt Emr RE Ewg Fqr Fst Ger Gra GN Gry TG Ham Hrv Iml J&S Kei Liv May *JMM* McK MV Mzy Neb Nef NK Pg Ptt Pot Pri Raw Ren Rce *Rs* Sal S&F S&O Sim SB Stw S&W Thr Vl Vk Wer Wll.

Similar names. Strawberry, Purple Strawberry, Golden Strawberry.

Seedsmen's synonyms. *Barbados Gooseberry*, Ren Sim. *Cape Gooseberry*, RE. *Ground Cherry*, Brt Buc Ewg Fqr NK Ptt, etc. *Husk*, Bkt Buc Bur C&J Emr Hrs, etc. *Improved Ground Cherry*, Col. *Mexican Tomato*, Sim. *Winter*, Bdg. *Winter Cherry*, Bkt Bur Hen J&S Thr Vk, etc.

Success. *Anb Bru* Bur *RE Fld* Liv *Mns* Mau *Rim Thr Wat Wd.*

Sumatra Fig. Sal. For similar names see *Fig.*

Sunrise. Bur Crs G&T SB.

Similar names. Golden Sunrise.

Seedsmen's synonyms. *Golden Queen*, Bur Crs G&T Ren.

Superb. Iow.

Supreme Forcing. Wat.

Similar names. Holmes' Supreme Forcing.

Sutton's Best of All, Sutton's Best of All Forcing, Sutton's Early Gold Mine, Sutton's Eclipse, Sutton's Peachblow. Entered as *Best of All*, *Best of All Forcing*, *Early Gold Mine*, *Eclipse*, and *Peachblow.*

Table Queen. Bkt Bdg C&B Crs *Drr* Hrm Hen Hly K&W *May* S&O Sim Thb Thr W&D.

Similar names. See *Golden Queen.*

Tait's Early Crimson. Entered as *Early Crimson.*

Ten Ton. Dlw MWJ J&M Koe Lan Mel Stw.

Seedsmen's synonyms. *T. T. T.*, Dlw Koe Stw.

Terra Cotta. Mzy Thr.

Similar names. Thorburn's Terra Cotta.

Thorburn Century. Thr *Vau.* For similar names see *Twentieth Century.*

Thorburn Novelty. Thr.

Thorburn's Earliest. Thr.

Thorburn's Lemon Blush, Thorburn's Long Keeper, Thorburn's New York, Thorburn's Rosalind, Thorburn's Terra Cotta. Entered as *Lemon Blush*, *Long Keeper*, *New York*, *Rosalind*, and *Terra Cotta.*

Thorburn's New Jersey. Bai Thr. For similar names see *New Jersey Red.*

Thorburn's 1902. *Thr.*

Tilden. Min.

Tree. Brd CE Re Fmr Fst Grw H&P *MWJ* Mau MV *Pac* Ree Ren Roc RP Shm Sox Spf Stk TB T&B *Vl* Vau.

Similar names. Early Tree, Extra Early Tree, Improved Extra Early Tree, Salzer's Giant Tree, Mansfield Mammoth Tree, Moore's Mammoth Tree, Mammoth Tree, Hammond's Tall Tree, Hammond's Dwarf Tree, Kuttawa Dwarf

Tree, Dwarf Tree, Improved Tree, Mansfield Wonderful Tree, Mansfield Tree, Moore's Tree, Buckbee's Tree, Japanese Tree, Station Tree.

Seedsmen's synonyms. *Dwarf Champion*, Bow Fer H&P RP Spf. *Early Dwarf Champion*, Grw Shw Vau. *Station*, Sox. *Upright*, Fst RE Man T&B.

Triumph. Man M&S *Nol.*

Similar names. Moore's Triumph.

Trophy. Alx Alr Anb Ar Bai Btl Bel Ber Bou Bow Brk Bdg Brn Bru Bui Bur Brr Cam CE C&B Cox Crg Crs Cur Dlw Del DD Drr Drm Dun Ebe Eic Elt Emr RE Evr Ewg Fqr Fst Fer *Fld* Ger Gls Gdn Gra Ggy Gry Grw TG Hns *Hde* Hrm Hrs Hrv Haw Hen Hly Hlm Hnt Iml Iow Jac RHJ J&M J&S Kei K&W Kg Lam Lea Lnr LB Liv Loh Mnd PM Mau May JCM JMM Mic Mhl Min M&S Mzy *Mrs* Neb Nef Nol NI OV Old Pac Pg Pir Prn Pne Pnt Ptt Pot Pri Pug Raw Ree Ren Rce Rt RP Sal SC S&F Shw S&O Sim Sox Spf Stk SB S&W Tex Thm Thr *Tpk* T&B Vl Vau Vk Vin Wat Wea W&D Wlt Wd Wdr WS.

Similar names. Extra Early Trophy, Improved Trophy, Improved Red Trophy, Improved Large Red Trophy, Improved Large Trophy, Cox's Trophy, Buist's Trophy, Livingston's Trophy, Golden Trophy, Large Trophy, Red Trophy, Yellow Trophy, Large Red Trophy.

Trucker's Favorite. *Bgg* Bri Bur Fst Frd Hop MWJ *J&S* PM JCM *JMM* McM M&S *Nol* Old Ree Rim Sal Shw *Wea* WS Y&H.

Similar names. See *Favorite.*

Turner's Hybrid. Alx Buc Bur Brw C&J Cam CE Cox D&H DD *Drr* Drm Fst Fer *Fld* Gls Ggy Grw TG Ham Hrv Hst J&S Kra Lnr LB Liv Mau JMM Mls MV Neb JMP Prn Qkr Ren Rce Roc Sal Shm Sox Spf SB Tat Trm Vl Vau Vk *Wat* Wdr Wyg.

Seedsmen's synonyms. *Maule's Sixteen Hundred Dollar*, Buc. *Mikado*, Bur Buc Cox Cur Evr Ggy, etc. *Potato Leaf*, Buc.

Twentieth Century. TG.

Similar names. New Century, Quarter Century, Burpee's Quarter Century, Thorburn Century, Century.

Upright. RE Fst Mau *Pac* T&B.

Seedsmen's synonyms. *Tree*, Fst Mau RE T&B.

Upright Station Tree. MV *Sox Thr.* For similar names see *Tree, Station.*

Vaughan's Earliest of All. Ggy Vau. For similar names see *Earliest of All.*

Vick's Leader. Crs. For similar names see *Early Leader.*

Victoria. S&O.

Virginia Corker. Lan.

Volunteer. Bgs Brn Crs Eic Ewg Fst Frd Gra TG J&S Kei Liv Mas May MV *Pac* JMP Pri Raw Rce Sal S&F S&O Shm Sim *Sox* Spf Thb T&B.

Waldorf. Hlm May Mzy Thr.

White Apple. Fer. For similar names see *Red Apple.*

White's Excelsior. Col DD Frd Gdn Hns Iow Mau Neb *S&O.*

Similar names. See *Excelsior.*

White's Excelsior Purple. Btl Col. For similar names see *Excelsior.*

Winter. Bdg Vl.

Seedsmen's synonyms. *Strawberry*, Bdg.

Winter Cherry. Bel Brk Buc Bur Cur D&H Elt Fst *J&S* Kei Liv Mzy Neb Pg *Rs* Sal Sim Stw Wer.

Similar names. See *Red Cherry.*

Seedsmen's synonyms. *Golden Strawberry*, Frd. *Ground Cherry*, Brr Bkt Buc Frd Hrs Sim. *Husk*, Bkt Buc Emr J&S Liv Thr, etc. *Strawberry*, Bur Bkt Buc Cur Hen J&S, etc.

Winter Husk. Hbt. For similar names see *Husk.*

Wonderful. *Nol.*

Wonder of Italy. Jes.

Wood's First Early. Wd. For similar names see *First Early.*

World's Fair. Blg.

Similar names. Buckbee's World's Fair, Buckbee's County Fair, Buckbee's State Fair, Griffith & Turner Co.'s World's Fair, County Fair, State Fair.

Yellow Cherry. Bai *Btl Bkt* Brk Bru *Buc* Bur Cle DD Elt Evr Fer TG Hrm K&W Lam LB Liv May JCM MV Mzy Neb OV Pac Pks Pnt Ree Rce SC Sim *Spf* SB S&H S&W Thr Vl Vk *W&D* Wdr.

Similar names. Improved Yellow Ground Cherry, Cherry, Improved Ground Cherry, Ground Cherry.

Yellow Fig. Col Ggy NK. For similar names see *Fig.*

Seedsmen's synonyms. *Yellow Plum,* Col NK.

Yellow Ground Cherry. Bur Fmr Iow Kos.

Similar names. See *Yellow Cherry, Red Cherry.*

Yellow Husk. Web. For similar names see *Husk.*

Yellow Peach. *Buc* D&H Elt RE Kra *Lnr* Liv MV Ren Rce Roc Sim *Sox* SB Thr.

Similar names. See *Peach.*

Yellow Pear. Alr *Btl Blg* Bru *Buc* Bur *CE* Cle CF Cox Crs Dlw Drm Elt Fmr Fer Gdn G&T Grw *Ham* Hde Hrm Hst Hbt Hly Iml Iow MWJ J&M Kra Lan Liv Mgd Mns Mau JCM JMM Mel Mic Mhl Min M&S Neb Nef NI HP Pir Pnt Ptt Rce Roc Sal SC Shw S&O Spf SB Stw S&H *Tex* TB Thr Trm Vl Vau Vk Web Wd.

Similar names. See *Red Pear.*

Seedsmen's synonyms. *Yellow Plum,* Bak Ber HP M&S.

Yellow Plum. Anb Bai Bak Brd Brt Btl Bkt Ber *Blg* Bow Brk Bdg Bri Bru *Buc* Bui Bur Brr Brw C&J CE Cle C&B Col CF Crs Cur DD Eas Ebe *Ebr* Emr RE Evr Ewg Fmr Fst Fer Gdn Gra Gng Ggy Gry G&T TG Hrs Hbt Hlm Hnt H&P RHJ J&S Jns Kei Ken Kg Kos Lam Lnr LB Liv Loh *Mns* Mas *May* McK MV Mzy Neb Nol NK *Pac* HP Prn Pne Pnt Poo Por Pot Pri Raw Ree Ren Rce Roc S&R SC S&F *S&O* Sie Sim Sox Spf SB Tat Tex Thr AGT Til T&B Vl Vau Vk Vin *Wea* W&D Wer Wll Wd Wdr WS.

Similar names. Red Plum, Plum.

Seedsmen's synonyms. *Yellow Fig,* Col NK. *Yellow Pear,* Bak Ber HP M&S.

Yellow Prince. Anb Bur CA Liv JL Mhl Tem.

Similar names. Livingston's Yellow Prince, Dwarf Yellow Prince, Livingston's Dwarf Yellow Prince.

Seedsmen's synonyms. *Golden Dwarf Champion,* Bur.

Yellow Trophy. Gdn Jac Wd WS. For similar names see *Trophy.*

Seedsmen's synonyms. *Golden Queen,* Wd WS.

Yellow Victor. Ggy. For similar names see *Canada Victor.*

Young's Excelsior. Yng. For similar names see *Excelsior.*

Zealand Fig. Mls. For similar names see *Fig.*

TURNIP (GARDEN TURNIP).

Amber Globe. Alx Anb Ar Bak Btl Bel Bou Bow Bui Bur *CE* Cle *CF* Crg CA Dlw DD Drm Eic Fst Gdn GH Gfg Grw Hns Hde Hrn Hst Hly Hlm MWJ J&M J&S Kg Liv Man PM May *JMM* Mhl Min M&S Nef Nol Pac HP *Pnt* Por Rce S&R SC Sie Sox Spf Stk Tat Tex Thm Trm *Vl* Vk *Wat* Wlt.

Similar names. Large Amber Globe, Green-Crowned Amber Globe, Green Top Amber Globe, Red-Crowned Amber Globe.

Seedsmen's synonyms. *Large Yellow Globe,* Bur Fst Tex Pac Vk WS. *Yellow Globe,* DD Hst May SC S&R Spf, etc. *Yellow Stone,* Hst.

American Purple Top. Brd Brn Bng EBC CF Crs Drr Dun Fer Gls Grw H&C Hop Jns Lam Loh JMM Mic Ptt Pri Sal S&O Sie Spf Trm Web Wdr.

Similar names. See *Purple Top Strap Leaf.*

Berlin. May.

Similar names. Small Berlin.

Seedsmen's synonyms. *Teltow*, May.

Big White Georgia. *Hly.*

Black Stone. Thr. For similar names see *Yellow Stone.*

Bruce's Golden Ball. Entered as *Golden Ball.*

Buckbee's Cardinal. Buc. For similar names see *Cardinal.*

Seedsmen's synonyms. *Scarlet Kashmyr*, Buc.

Buckbee's Extra Early Cames, Buckbee's Purple Top Strap Leaf, Buckbee's Red Top Strap Leaf. Entered as *Extra Early Cames, Purple Top Strap Leaf*, and *Red Top Strap Leaf.*

Budlong's Improved White French. Entered as *Budlong's White French.*

Budlong's White French. C&J. For similar names see *White French.*

Buist's Large Globe. Jac.

Bullock Green Top. SB.

Seedsmen's synonyms. *Yellow Aberdeen*, SB.

California Navet. Vin. For similar names see *Jersey Navet.*

Callaway. Alx.

Seedsmen's synonyms. *Georgia Winter*, Alx.

Cardinal. Alx Bai Bur GN J&S *Sie.*

Similar names. Buckbee's Cardinal, Carter's Cardinal.

Seedsmen's synonyms. *Scarlet Kashmyr*, Alx Bur J&S JL.

Carter's Cardinal. Evr Vl. For similar names see *Cardinal.*

Clyde Purple Top Mammoth. For similar names see *Purple Top Globe.*

Cow Horn. Alx Ar *Bak* Brt Btl Bkt Bou Bow *Bgg* Brk Bdg Bur Brr C&J EBC C&B CF Cox Crg Cur CA D&H DD Drr Drw Ebr Elt Emr Fmr Fqr Fst Fer Frd *Gls* Gry G&T Grw *Ham* Hde *Hrv* Hst Hen Hly H&P MWJ RHJ Jns Kos Lam Lan *Lnr* LB Liv Loh Mau JCM JMM McK McM Mhl Min MV M&S Mzy Neb *Nol* OV Pac Pir Prn *Pnt* Ptt Poo Por Pri Pug Qkr Ren Sal S&R SC S&F Shw Shm Sim Sox *Spf* SB S&W Tex Thm Thr *Tpk* Trm Vau Vin Wea W&D Wer Wdr Wyg Y&H.

Similar names. Large Cow Horn, Long Cow Horn, Long White Cow Horn.

Seedsmen's synonyms. *Large Cropper*, G&T. *Long White*, Alx Bur Drr Fqr Fer Hen, etc. *Long White Meaux*, RHJ. *White Tankard*, D&H.

Cox's Extra Early Snowball. Entered as *Extra Early Snowball.*

Crystal White. *Fmr* May.

Devonshire Graystone. D&H *RE* Fmr SB. For similar names see *Graystone.*

Dixie Land. Gdn Jac MWJ Lan McM.

Seedsmen's synonyms. *Southern Prize*, Gdn Jac.

Early American Red Top. RHJ. For similar names see *Red Top Strap Leaf.*

Early Bay City. *Ham.*

Similar names. Hammond's Early Bay City.

Early Dutch. Ebr Emr Lan Mnd MV OV Pri *Sox* Thr *Tpk.*

Similar names. See *White Dutch.*

Early Flat Dutch. Anb Ar Blg Bou Bdg Chl C&B CF Cur Drm Ggy Hen Jac Lan Liv JL Mns Min *Pac* Pnt Pot S&B Shw Stw T&B W&D Wll.

Similar names. White Flat Dutch, White Flat Dutch Strap Leaf, Early White Flat Dutch, Improved Early White Flat Dutch, Early White Flat Dutch Strap Leaf, Early Large Flat Dutch, Early Purple Top Flat Dutch.

Seedsmen's synonyms. *Early White Dutch*, Ggy Shw. *Early White Strap Leaf*, Fmr. *White Strap Leaf*, Bdg. *White Top Strap Leaf*, Drm Liv JL Pnt.

Early Flat Purple Top. Ar CA Dlw Ggy MWJ Lan Mhl HP Rs Stw.

Similar names. See *Purple Top Strap Leaf.*

Seedsmen's synonyms. *Early Red Flat Top*, Ar Ggy HP May.

Early Flat Purple Top Strap Leaf. Ar Bgs May.

Similar names. See *Purple Top Strap Leaf.*

Early Flat Red Top. Ar *Cam* CA Dlw G&T Lan Mhl HP Stw.

Similar names. See *Red Top Strap Leaf.*

Seedsmen's synonyms. *Purple Top Strap Leaf,* Lan Stw. *Purple Top,* Ar. *Early Purple Flat Top,* Ggy HP.

Early Flat White Top. Ggy. For similar names see *White Top Strap Leaf.*

Early Golden Ball. Sim. For similar names see *Golden Ball.*

Seedsmen's synonyms. *Orange Jelly,* Sim.

Early Golden Stone. Cle. For similar names see *Yellow Stone.*

Early Ivory. Chl GN.

Similar names. Ivory Ball.

Early La Crosse. Sal.

Early Large Flat Dutch. Shm. For similar names see *Early Flat Dutch.*

Early Large Purple Top Globe. HP. For similar names see *Purple Top Globe.*

Early Large Red Top Globe. Ar Btl Bkt CA G&T MWJ Lan Min Rim Stw Wlt.

Similar names. See *Red Top White Globe.*

Early Large Red Top White Globe. Bgs.

Similar names. See *Red Top White Globe.*

Early Nimble Dick. Bru. For similar names see *Nimble Dick.*

Early Pure White Milan. Thr. For similar names see *Purple Top Milan.*

Early Purple Top. Eic K&F McM Min *Rs* Stk TB Vau Wd WS Wyg.

Similar names. See *Purple Top Strap Leaf.*

Seedsmen's synonyms. *Early Red Top,* Eic.

Early Purple Top Flat Dutch. Crg.

Similar names. See *Early Flat Dutch.*

Early Purple Top Milan. Brr C&B *Crs* GH Gra Hrs Hen H&C MV Rs Sal S&W Thr Thb Web Yng.

Similar names. See *Purple Top Milan.*

Early Purple Top Munich. Alr Anb Bdg Brn Del DD Drr *Eic* Ger GH Gra Jer Kos Kra JCM Min Neb Pir Pri Rce RP SC Shm Til Web.

Similar names. See *Purple Top Munich.*

Early Purple Top Strap Leaf. Bow Brn Bng Bur C&J D&C Fmr Fst Fer Frd Ham Hrm Hst *Hly* Hlm H&P J&M Lam Lea LB NK Pg *Rtk* S&H Tex Thm Til Vau Wlt.

Similar names. See *Purple Top Strap Leaf.*

Early Purple Top Strap Leaf Milan: Bgs.

Similar names. See *Purple Top Milan.*

Early Purple Top White Globe. *Alx* H&P *Rs.*

Similar names. See *Purple Top White Globe.*

Early Red Purple Top. Pne. For similar names see *Purple Top Strap Leaf.*

Early Red Top. Eic Kra McM Pug Stk Wd WS.

Similar names. See *Red Top Strap Leaf.*

Seedsmen's synonyms. *Early Purple Top,* Eic.

Early Red Top Globe. Brt *Cam* Frd Lan.

Similar names. See *Red Top White Globe.*

Early Red Top Munich. Pac. For similar names see *Purple Top Munich.*

Early Red Top Strap Leaf. Alx Bur D&C RE Fmr Fst Frd Ham Hst Hlm NK Ptt Por S&R Tex Thb Wdr Y&H.

Similar names. See *Red Top Strap Leaf.*

Early Red Top White Globe. *Alx* Alr J&S Nol *Sie.*

Similar names. See *Red Top White Globe.*

Early Scuppernong. J&S.

Early Six Weeks. Buc Crs Evr Hrm Ren Roc Sal Vl Vk.

SIMILAR NAMES. See *Six Weeks.*

SEEDSMEN'S SYNONYMS. *Early White Snowball,* Vk. *Nimble Dick,* D&H Ren. *Snowball,* Buc Roc Crs Evr.

Early Snowball. Alx Brk Bgs *CE* C&B Cur Elt Evr Fle GH Gra Hen Hop Iow J&S Ken Kg Lan Lnr Mnd Man McK Mel Mls *Nol Pac* Pks Poo Pot Raw Ree Ren Rce Roc Rs Shm Sim SB S&H S&W Thr Thb *Tlh* Til T&B Wat Wea W&D.

SIMILAR NAMES. See *Snowball.*

SEEDSMEN'S SYNONYMS. *Early White Stone,* Bdg. *Six Weeks,* Bdg. *White Stone,* Fle Ren Sim SB.

Early Snow White Globe. Bui. For similar names see *White Globe.*

Early White Dutch. Brt Brr Ggy Poo S&O *Tlh* Vl.

SIMILAR NAMES. See *White Dutch.*

SEEDSMEN'S SYNONYMS. *Early Flat Dutch,* Ggy.

Early White Dutch Strap Leaf. D&C. For similar names see *White Dutch.*

Early White Egg. Alx Anb Ar Brt Btl Bkt Bgs Bui Cle Col Crs DD Drr Drm Eic Elt Ger Gls Gdn GH Gng Gry G&T Hns Hde Hrn Iow Jac J&S Lan Liv JMM Mhl Min Nol Pir Qkr Sie Sim Spf Y&H.

SIMILAR NAMES. See *White Egg.*

Early White Flat Dutch. Alx Alr Bak Brd Btl Bel Bow Bgs Bri Brn Bru Buc Bui Bur CE Cle Col Cox Crg Crs CA Dlw Del DD Drr Eic Evr Fmr Fer Ger Gdn GH Gry TG Hns Ham Hrv Hlm Iml MWJ RHJ J&M J&S Kg Kos Lam Lea Lnr Mgd *Mns* Mau JMM McM Mic Mhl Mls M&S Mzy Neb Nef NI NK Pir Ptt Por Pug Ree Rce Roc Sal S&R Sie Sox Stk S&H Tat TB Thm Til Tpk *Vl* Vau Vin Wea Wer Wlt Wdr Wyg Yng Y&H.

SIMILAR NAMES. See *Early Flat Dutch.*

Early White Flat Dutch Strap Leaf. Bkt Bur Frd Gfg Hst *Hly* LB Loh Pac Pg Pks SB Tex Vk.

SIMILAR NAMES. See *Early Flat Dutch.*

Early White Flat Strap Leaf. C&J. For similar names see *White Top Strap Leaf.*

Early White Globe. J&M McK Ren. For similar names see *White Globe.*

Early White Milan. Brt Bkt Bri Bur C&B Drr Gls Hns Hen Iow *RHJ* J&M Mnd McM Ree *Rs RP S&W* Thr Yng Y&H.

SIMILAR NAMES. See *Purple Top Milan.*

Early White Model. Del NK. For similar names see *White Model.*

Early White Six Weeks. *Kei* K&W. For similar names see *Six Weeks.*

Early White Snowball. Vk Wlt. For similar names see *Snowball.*

SEEDSMEN'S SYNONYMS. *Early Six Weeks,* Vk.

Early White Stone. Bdg Bgs Brn Bru Cle CF Cox Crs Ebe RE Gls Gra Gng Hrm RHJ Jns *Kei* Ken.

SIMILAR NAMES. See *Yellow Stone.*

SEEDSMEN'S SYNONYMS. *Early Snowball,* Bdg. *Six Weeks,* Bdg Hrm. *Snowball,* Gng.

Early White Top. Pug. For similar names see *White Top Strap Leaf.*

Early White Top Strap Leaf. Bgs C&B Cur Elt Fmr GH Hen Neb Ptt Tem Thm W&D Wdr Y&H.

SIMILAR NAMES. See *White Top Strap Leaf.*

SEEDSMEN'S SYNONYMS. *Early Flat Dutch,* Fmr.

Early Yellow Finland. RHJ. For similar names see *Yellow Finland.*

Early Yellow Globe. GH. For similar names see *Yellow Globe.*

Early Yellow Purple Top. Bow. For similar names see *Purple Top Strap Leaf.*

Early Yellow Stone. Brn Cle GH Hrs. For similar names see *Yellow Stone.*

SEEDSMEN'S SYNONYMS. *Golden Stone,* Cle.

Early Yellow Teltow. Bdg. For similar names see *Teltow.*

SEEDSMEN'S SYNONYMS. *Marrow,* Bdg. *Small Berlin,* Bdg.

Empress. Ren.

Similar names. Rennie's Empress.

Eureka. Pri.

Similar names. Price & Reed's Eureka.

Seedsmen's synonyms. *Egyptian*, Pri.

Extra Early Cames. Buc.

Similar names. Buckbee's Extra Early Cames.

Extra Early Dutch. HP. For similar names see *White Dutch.*

Extra Early Purple Top Milan. Alx Alr Anb Bak Brd Btl Ber Bow Bdg Brn Buc Bui Bur C&J CE Chl Col Cok Cur Del DD Drr Drm Eas Ebr Elt RE Evr Fmr Fax Fer Fld Gng G&T TG Hns Hde Hrm Hrv Hst Hbt *Hly* Hop Hse H&P Iml Iow J&S Jns K&F Kg Lam *Lnr* LB Liv JL Loh Mgd Mas Mau May JMM McK Mic Mls Neb Nol OV Pac Pg HP Prn Pnt Por Pri Qkr Raw Ree Ren Rce Roc S&R SC Shw S&O Shm Sie Sim Sox Spf SB Stw Tem Thr AGT T&B Vl Vk Vin *Wat* W&D Wer Wd Wyg.

Similar names. See *Purple Top Milan.*

Extra Early Purple Top Munich. Bgs Eic Fst Gry Grw TG JL May Mhl OV Roc S&O Stk *Tpk* Vl Wat Wll.

Similar names. See *Purple Top Munich.*

Extra Early Purple Top Strap Leaf. Sie.

Similar names. See *Purple Top Strap Leaf.*

Extra Early Purple Top Strap Leaf Milan. Dlw Fst Grw Ham M&S Tat Tex Y&H.

Similar names. See *Purple Top Milan.*

Extra Early Red Top Globe. Sie. For similar names see *Red Top White Globe.*

Extra Early Red Top Milan. Ar Eic Frd Hrn Kra Lnr OV Old Til Vau WS.

Similar names. See *Purple Top Milan.*

Extra Early Snowball. Cox. For similar names see *Snowball.*

Extra Early Summer Purple Top. Blg.

Similar names. See *Purple Top Strap Leaf.*

Extra Early White Egg. *Eic* Hst HP Shw Stk. For similar names see *White Egg.*

Extra Early White French. Stk. For similar names see *White French.*

Seedsmen's synonyms. *White Egg*, Stk.

Extra Early White Milan. Alx Alr Btl Bru Buc *Bur* Brr Brw Col Cur Ebe Ebr Eic Fqr Fer Fle Frd *Gls* Gra Grw Hbt *Hly* J&S Lam Lnr Liv JL *Loh* Mgd Mau Mic M&S Neb *Nol* NK Old Pne Por Raw S&R Shw *Spf* SB Tat Vk Wea W&D Wd.

Similar names. See *Purple Top Milan.*

Extra Early Yellow Finland. *RHJ.*

Flat Purple Top. TG J&S M&S Nol Sox.

Similar names. See *Purple Top Strap Leaf.*

Flat Purple Top Strap Leaf. Bgg CF Elt K&F May JCM OV S&F.

Similar names. See *Purple Top Strap Leaf.*

Flat Red Top. EBC Lan. For similar names see *Red Top Strap Leaf.*

Flat Red Top Strap Leaf. Bai. For similar names see *Red Top Strap Leaf.*

Forester. Evr Hrn Trm Vl.

Seedsmen's synonyms. *Seven Top*, Evr Hrn Trm Vl. *Turnip Winter Greens*, Trm.

Frost King. CA *Thm.*

Similar names. Georgia Frost King.

Fulton Mammoth. Hst MWJ.

Georgia Frost King. *Wlt.*

Similar names. Frost King.

German Teltow. Ebr Mzy Thr. For similar names see *Teltow.*

Golden Ball. Alx Bai Bak Btl Bkt Bel *Blg* Bou Brk Bri Bru Bng Bui Brb *Bur* Brr Brw C&J CE C&B CF Cur CA Drr Drw Drm Ebe Eic Elt Emr RE Evr Fmr Fst

Frd Ger Gls GH Gry Gfg Grw TG Hns Hde Hrm Hrs Hrv Hst Haw Hen H&C Hlm Hop Iow *RHJ* J&M J&S K&W Ken Kg *Lnr* Liv Man Mau May JMM McK Mls MV M&S Mzy Neb Nol NI OV Pac Pir Prn Ptt Poo Por Pot Ree Ren Rce Rs RP S&R S&O Sie Sox SB Stw S&H S&W Tem Tex Thm Thr *Tlh* Til *Tpk* Trm T&B Vl Vau Wea Web W&D Wd Yng.

Similar names. Early Golden Ball, Bruce's Golden Ball, Griffing's Golden Ball, Robertson's Golden Ball, Improved Golden Ball, Rice's Improved Golden Ball, Yellow Ball.

Seedsmen's synonyms. *Orange Jelly*, Ebe Ebr Frd Hen Ken J&S, etc. *Snowball*, Vl. *Yellow Globe*, Gls.

Golden Globe. Alr Buc Roc *Spf.* For similar names see *Yellow Globe.*

Golden Stone. Ggy. For similar names see *Yellow Stone.*

Seedsmen's synonyms. *Early Yellow Stone*, Cle.

Golden Teltow. M&S. For similar names see *Teltow.*

Graystone. Bru RE Ewg Fle *Kei* McK Pks Ren Sim SB Thr.

Similar names. Improved Graystone, Devonshire Graystone.

Seedsmen's synonyms. *Purple Top Mammoth*, Ren. *Mammoth Graystone*, SB.

Green-Crowned Amber Globe. Lan Stw. For similar names see *Amber Globe.*

Green Globe. Thr.

Green Top Amber Globe. Y&H. For similar names see *Amber Globe.*

Green Top Bullock. SB.

Green Top Scotch. D&H Fmr. For similar names see *Yellow Scotch.*

Green Top Yellow Aberdeen. Bgs Brn Bru D&H Eas Ewg GH Ggy Kei *McK* M&S.

Similar names. See *Yellow Aberdeen.*

Griffing's Golden Ball. Entered as *Golden Ball.*

Half Long Red Top. Bur Hbt. For similar names see *Red Top Strap Leaf.*

Half Long White Jersey. SB. For similar names see *Jersey Navet.*

Hammond's Early Bay City. Entered as *Early Bay City.*

Hammond's Milk White. Ham. For similar names see *Salzer's Milk.*

Hanover. McM Stk Tat.

Similar names. Large White Hanover.

Seedsmen's synonyms. *Russian*, Bdg. *Sweet German*, Bdg Stk. *White French*, Bdg. *White Rock*, Bdg.

Improved Early White Flat Dutch, Improved Flat Purple Top, Improved Golden Ball, Improved Graystone, Improved Purple Top Mammoth, Improved Red Top Mammoth, Improved Sweet German, Improved White Sweet German, Improved Yellow Aberdeen, Improved Yellow Globe. Entered as *Early White Flat Dutch, Flat Purple Top, Golden Ball*, etc.

Ivory Ball. M&S. For similar names see *Early Ivory.*

Jersey Lily. Bkt Bri Fqr Lan *Mel* Pri Shm. For similar names see *Jersey Navet.*

Jersey Lily White Globe. Koe. For similar names see *Jersey Navet.*

Jersey Navet. *Bur* Cle Fst Pir Tat.

Similar names. White Jersey Navet, California Navet, Jersey Lily, Jersey Lily White Globe, White Lily, Half Long White Jersey.

Laing's Purple Top Strap Leaf. SB Vk.

Similar names. See *Purple Top Strap Leaf.*

Landreth's Southern Snow White Globe. Entered as *Southern Snow White Globe.*

Large Amber Globe. Cur Fer G&T *Lan Lnr* LB JL Loh Shw SB Til Wer WS.

Similar names. See *Amber Globe.*

Seedsmen's synonyms. *Yellow Globe*, Wd.

Large Cow Horn. May Wlt. For similar names see *Cow Horn.*

Large Late Flat Purple Top. TB. For similar names see *Purple Top Strap Leaf.*

Large Norfolk. Lan. For similar names see *White Norfolk.*

Large Purple Top White Globe. Bui Pnt.

Similar names. See *Purple Top White Globe.*

Large Red Top Globe. TG Hlm *Vl.* For similar names see *Red Top White Globe.*

Large Red Top Norfolk. Loh. For similar names see *White Norfolk.*

Large Red Top White Globe. SC. For similar names see *Red Top White Globe.*

Large Snow White Globe. MWJ. For similar names see *White Globe.*

Large Sweet German. Del May OV. For similar names see *Sweet German.*

Large White. Bur Cur Fst Iml J&S May Nef Nol Pac Ree S&H Wer Wd Wyg Y&H.

Similar names. See *Long White.*

Seedsmen's synonyms. *Sweet German,* Cur Y&H. *Sweet Russian,* Nef S&H. *Russian,* Wd. *White Russian,* Anb Bui Liv.

Large White Flat Norfolk. Pks Tpk. For similar names see *White Norfolk.*

Large White French. C&B DD Drr Elt Evr Ggy Hen Lnr Mau Prn Pnt Raw Vl Y&H.

Similar names. See *White French.*

Seedsmen's synonyms. *Sweet German,* Prn. *White Swede,* Ggy.

Large White Globe. Buc Bui *Cam* Col CF Crg DD Eic Evr Gdn Jac Ken Liv JL JMM Neb Pnt Roc Sal SC Shw *Spf* Stk Thr Vl Wlt Wdr.

Similar names. See *White Globe.*

Seedsmen's synonyms. *Pomeranian White Globe,* Wdr.

Large White Globe Strap Leaf. *CE* Hse JMM Rce SB.

Similar names. See *White Globe.*

Large White Hanover. *Eic* Wd. For similar names see *Hanover.*

Large White Norfolk. Bow Brn Bui *CE* Cle Crs Cur Drr Fmr Fer Gls Gdn *Hly* H&P Jns Ken Kg *Lam* Lea Lnr LB Mau May Mzy Neb Pri Rce Shw Shm Sox *Spf* Tat Til Vk Wlt Wd WS.

Similar names. See *White Norfolk.*

Large Yellow. Bur Pac Tex Vk.

Large Yellow Aberdeen. Shm. For similar names see *Yellow Aberdeen.*

Large Yellow Globe. Bui *Cam* Chl CF Cox CA Fst Gdn Liv Mau JMP Pnt Raw Shw WS.

Similar names. See *Yellow Globe.*

Seedsmen's synonyms. *Amber,* Bur Fst Pac Tex Vk WS. *Yellow Stone,* Raw.

London Market. Kei.

Long Cow Horn. TG J&S May Nol S&O Stk Tat Vl. For similar names see *Cow Horn.*

Seedsmen's synonyms. *Long White French,* Nol. *White French,* J&S.

Long White. Bow Brk Bdg Bur C&J EBC C&B CF Cox Cur DD Drr Elt Emr Fmr Fqr Fst Fer Gry Grw Hst Hen Hlm H&P Kos LB Liv Loh JCM JMM Mzy Neb *Nol* Ptt Poo Por Pug Qkr S&R SC S&F Shw Shm Sox *Spf* S&W Tex Vau Wea W&D Wer Wdr Wyg Y&H.

Similar names. Large White.

Seedsmen's synonyms. *Cow Horn,* Alx Bur Drr Fqr Fer Hen, etc.

Long White Cow Horn. *Bel* Bgs Brn Bng Bui Brw CE Cle Crs Evr Gdn GH Ggy Hrn *J&S* Pnt Rce T&B Vk Wd WS.

Similar names. See *Cow Horn.*

Long White French. Bur Elt Lnr Mzy Pac Pnt S&W W&D.

Similar names. See *White French.*

Seedsmen's synonyms. *Long Cow Horn,* Nol. *Sweet German,* Bur Pac.

Long White Meaux. RHJ.

Seedsmen's synonyms. *Cow Horn,* RHJ.

Long White Norfolk. Fst GH. For similar names see *White Norfolk.*

McMillan's Improved Red Top Globe. Entered as *Red Top Globe.*

Maltese. Sim.

Similar names. Yellow Malta.

Mammoth Graystone. SB. For similar names see *Graystone.*

Seedsmen's synonyms. *Improved Graystone,* SB.

Mammoth Purple Top Globe. Crg Ebe J&S Shw.

Similar names. See *Purple Top Globe.*

Mammoth Red Top Globe. Gdn Jac. For similar names see *Red Top White Globe.*

Mammoth Red Top White Globe. Bui.

Similar names. See *Red Top White Globe.*

Milan Strap Leaf. Cle. For similar names see *Purple Top Milan.*

Moore & Simons' Golden Teltow. Entered as *Golden Teltow.*

Native Georgia Turnip. Wlt.

Nimble Dick. RE SB.

Similar names. Early Nimble Dick, White Nimble Dick.

Seedsmen's synonyms. *Early Six Weeks,* D&H Ren. *White Six Weeks,* SB.

Non Plus Ultra. Kra.

Northrup, King & Co.'s Early White Model. Entered as *Early White Model.*

Orange Jelly. Bai *Blg* Bow Bgs Brr Bur CE Cle CA Drm Ebe Evr Fmr Fer Frd GH Ggy Grw Haw Hen Iow *RHJ* J&M J&S *Kei* Ken Lam *Lnr* LB Liv JL Loh May JMM MV M&S Nef Nol OV Pac Por S&R Sim *Sox* SB S&H Tex Thm Til *Tpk* Vl Vau Vk Vin Wea Wyg.

Similar names. Orange Sweet.

Seedsmen's synonyms. *Early Golden Ball,* Sim. *Golden Ball,* Ebe Evr Frd Hen Iow Liv, etc. *Robertson's Golden Ball,* Bow Bur Cox Fer Lam Loh, etc.

Orange Sweet. Sal. For similar names see *Orange Jelly.*

Perfection Red Top Market White Globe. M&S.

Similar names. See *Red Top White Globe.*

Perfection White. May.

Pomeranian Globe. Stk. For similar names see *Pomeranian White Globe.*

Pomeranian Large White Globe. Crs Hse Rce.

Similar names. See *Pomeranian White Globe.*

Pomeranian White Globe. Alx Anb Ar Bak Brd Btl Bow Bgs Bui *Bur* C&J *Cam* Cle Cur Eic *RE* Fmr Fst Fer Frd *Gls* Gdn GH Ggy Gfg Hde Hrn Hst *Hly* H&P MWJ RHJ J&S Koe Lam Lan *Lnr* LB Loh May Min Mzy *Nol* OV Pac JMP *Pnt* Por S&R Spf SB Tat Tex TB Thm Thr Til Tpk Vau Vk Vin Wer Wlt Wd Wdr WS Y&H.

Similar names. Pomeranian Large White Globe, Pomeranian Globe.

Seedsmen's synonyms. *Large White Globe,* Wdr.

Price & Reed's Eureka. Entered as *Eureka.*

Prize Purple Top. Ren. For similar names see *Purple Top Strap Leaf.*

Prize Purple Top Strap Leaf. Brd. For similar names see *Purple Top Strap Leaf.*

Purple Top Globe. Alx Bru C&J DD *Eic* Evr Fst Ggy Iow Kra Mgd Sal Sim Stk Tat Tpk.

Similar names. Purple Top Globe Strap Leaf, Mammoth Purple Top Globe, Early Large Purple Top Globe, Purple Top Mammoth Improved Purple Top Mammoth, Clyde Purple Top Mammoth.

Seedsmen's synonyms. *Red Top Globe,* Alx Evr.

Purple Top Globe Munich. Bai. For similar names see *Purple Top Munich.*

Purple Top Globe Strap Leaf. Pir. For similar names see *Purple Top Globe.*

Purple Top Mammoth. Alx CA D&H Ewg *Gra* Kei Ren.

Similar names. See *Purple Top Globe.*

Purple Top Milan. *Bgg* Brk Bri Cox Fqr Ggy Hly *Jns* K&W Mzy NI Pir S&F Thm Trm.

Similar names. Early Purple Top Milan, Extra Early Purple Top Milan, Early Purple Top Strap Leaf Milan, Extra Early Purple Top Strap Leaf Milan, Extra Early Red Top Milan, Milan Strap Leaf, White Milan, Early White Milan, Extra Early White Milan, Early Pure White Milan.

Purple Top Munich. Brk Brb Cle Elt Emr Evr Fmr Fqr Ggy Jns Lnr Mnd Man MV Mzy *Sox* Spf S&W Thr Vau Vin.

Similar names. Early Purple Top Munich, Extra Early Purple Top Munich, Purple Top Globe Munich, Early Red Top Munich.

Purple Top Scotch. Crs. For similar names see *Yellow Scotch.*

Seedsmen's synonyms. *Aberdeen*, Crs.

Purple Top Strap Leaf. Alr Anb Bak Brt Btl Bkt Bel Ber Bou Bow Brk Bri Bru Buc Bui Brr Brw CE Cle Cox Crs Del DD Drr Drm Dun Eas Ebe Ebr Evr Fax Fld Ger Gls Gdn GH GN Gry Gfg Grw Hns Hde Hrn Hrs Hrv Haw Hbt H&C Hly Hop Hse Hnt Iml Iow Jac Jns K&W Kg Kos *Lnr* Liv JL Loh Mgd Man Mns JMM Mel Mic Mls MV Neb Nef NI Old *Pac* JMP Pir Prn Pnt Poo Raw Rce Roc RP Sal SC Shw S&O Shm *Sox* Spf Tem AGT *Tlh* Tpk T&B Vl Vk *Wat* Wea Web Wd Wll Yng.

Similar names. Purple Top White Strap Leaf, Buckbee's Purple Top Strap Leaf, Laing's Purple Top Strap Leaf, Prize Purple Top Strap Leaf, Early Purple Top Strap Leaf, Extra Early Purple Top Strap Leaf, Flat Purple Top Strap Leaf, White Flat Purple Top Strap Leaf, Early Flat Purple Top Strap Leaf, Early Flat Purple Top, Flat Purple Top, White Flat Purple Top, Large Late Flat Purple Top, Improved Flat Purple Top, Rennie's Prize Purple Top, Early Purple Top, American Purple Top, Extra Early Summer Purple Top, Early Red Purple Top, Early Yellow Purple Top, Prize Purple Top.

Seedsmen's synonyms. *Buckbee's Red Top Strap Leaf*, Buc. *Early Flat Red*, Lan Stw. *Red Top Strap Leaf*, Bui Bur Drr Evr Frd Hlm, etc.

Purple Top White Globe. Anb Bak Brd *Blg* Bou Bow Brk Brn Bng Brr CE Chl Cle C&B Col Cox Crs Cur Drr Drm Elt Fqr Fer Ger Gls GH Gra Gry Hde Hrn Hrv Hst Hen *Hly* Hlm Jns Kg Koe Lam Lnr LB Liv JL Loh Lon Man PM Mns May JCM JMM Mic Mhl MV M&S Neb *Nol* NI NK OV Old *Pac* Pg Pks JMP Prn *Pnt* Poo Por Pug *Rtk* Raw Roc Rt Rs RP S&R S&F S&B S&O *Sox* Spf S&H Tem *Tpk* T&B Vl Vau Vk Wea Web W&D Wer Y&H.

Similar names. Early Purple Top White Globe, Large Purple Top White Globe. See also *White Globe, Red Top White Globe.*

Seedsmen's synonyms. *Red Top White Globe*, Hst.

Purple Top White Strap Leaf. Brb.

Similar names. See *Purple Top Strap Leaf.*

Purple Top Yellow Aberdeen. Alx Brd Bow Bgs Bru Bui *EBC* C&B Crs CA D&H Drr Ewg Fer Gdn GH Hde Hen RHJ Jns Kei Lam LB Loh JMM *McK Nol* Pg Pnt Raw Ren Shw S&O Sim *Spf* SB W&D Wd WS.

Similar names. See *Yellow Aberdeen.*

Red-Crowned Amber Globe. Lan. For similar names see *Amber Globe.*

Red Globe. McK Ren Wdr. For similar names see *Red Top White Globe.*

Seedsmen's synonyms. *Norfolk*, Ren.

Red Globe Norfolk. Sim SB. For similar names see *White Norfolk.*

Red Lily. *Sal.*

Red Top. Bui Drr Gdn Jac McK Qkr Ren.

Similar names. See *Red Top Strap Leaf.*

Red Top Globe. Alx *CE* EBC Ebr Eic Evr Hns Ken McM Mel NI Pri Ree S&W Thr Wd WS.

Similar names. See *Red Top White Globe.*

Seedsmen's synonyms. *Purple Top Globe*, Alx Evr.

Red Top Strap Leaf. *Bel* Ber Brk Bdg Bru Buc *CE* C&B Col Cur Emr Evr Ewg Gra GN Hen H&C Hop Hse Iml *Kei* Ken Kg Lnr Loh Mas Mau JMM MV Mzy Neb Nef *Nol* Pnt Pot Pri Ree Ren Rce SC Shw Sim *Sox* SB S&W Tat Thr Vin Wat W&D.

Similar names. Buckbee's Red Top Strap Leaf, Early Red Top Strap Leaf, Flat Red Top Strap Leaf, Early American Red Top, White Flat Red Top, Red Top, Early Red Top, Flat Red Top, Early Flat Red Top, Half Long Red Top.

SEEDSMEN'S SYNONYMS. *Purple Top Strap Leaf*, Buc Bui Bur Drr Evr Frd Hlm, etc.

Red Top White Globe. Blg Bdg Bur Brw CF Dlw *D&H* Fst Grw Hrs Hst H&C Iml Kos Mau Mzy Pac Ptt Rce Shw Sox Tex Til Wdr.

SIMILAR NAMES. Early Red Top White Globe, Large Red Top White Globe, Early Large Red Top White Globe, Buist's Mammoth Red Top White Globe, Perfection Red Top Market White Globe, Red Top Globe, Improved Red Top Globe, McMillan's Improved Red Top Globe, Wood's Improved Red Top Globe, Early Red Top Globe, Extra Early Red Top Globe, Large Red Top Globe, Early Large Red Top Globe, Mammoth Red Top Globe, Red Globe. See also *White Globe, Purple Top White Globe.*

SEEDSMEN'S SYNONYMS. *Purple Top White Globe*, Hst.

Rennie's Empress, Rennie's Prize Purple Top. Entered as *Empress* and *Prize Purple Top.*

Rhode Island Rock. J&S *Tlh Vau.*

Rice's Improved Golden Ball. Entered as *Golden Ball.*

Robertson's Golden Ball. Bow *Bgg* Bdg Bgs Brn Bur Cle Col Cox Crs Fer Gra RHJ Jns Lam LB JL Loh Min Nef Pnt Pri Raw Stk Tat Vk Vin Wyg Y&H.

SIMILAR NAMES. See *Golden Ball.*

SEEDSMEN'S SYNONYMS. *Orange Jelly*, Bur Cox Fer JL Nef Vk, etc.

Rock. Alx.

SEEDSMEN'S SYNONYMS. *Sweet German*, Alx.

Royal Purple Top Norfolk. Bru RE Sim. For similar names see *White Norfolk.*

St. Andrews. Brk Fqr Gry Raw S&F.

Salzer's Milk. Sal.

SIMILAR NAMES. Hammond's Milk White.

Scarlet Kashmyr. Btl Bru Buc Bur Chl C&B Col Drr Fmr Fer Frd Gra Ggy Gry Ham Hrs Hen Hbt Hse Iow J&S Kra Lam *Lnr* Liv JL Mgd Mau JMM Pac Ptt Rce Shw Shm *Sie* S&H Thr Vk W&D.

SEEDSMEN'S SYNONYMS. *Buckbee's Cardinal*, Buc. *Cardinal*, Alx Bur J&S JL.

Seven Top. Alx Ar Bak Btl Bow Bur C&B Crg Crs CA DD Ebr Evr Fst Fer Gfg G&T Grw Hde Hrn Hst *Hly* Jac MWJ J&S Kg Lam Lan Lea *Lnr* May JCM JMM McM Pnt Rce SC Spf Tat Thm Thr Trm Vl Vau Wlt Wd WS.

SIMILAR NAMES. Southern Seven Top.

SEEDSMEN'S SYNONYMS. *Forester*, Evr Hrn Trm Vl. *Turnip Winter Greens*, Pnt SC Trm.

Sharpe's Snowball. Entered as *Snowball.*

Six Weeks. May Mls Shm.

SIMILAR NAMES. Early Six Weeks, White Six Weeks, Early White Six Weeks.

SEEDSMEN'S SYNONYMS. *Early Snowball*, Bdg. *Early White Stone*, Bdg Hrm. *Snowball*, May.

Small Berlin. Bgs Bur Fmr Wer. For similar names see *Berlin.*

SEEDSMEN'S SYNONYMS. *Early Yellow Teltow*, Bdg. *Marrow*, Bdg. *Teltow*, Bur Fmr Wer.

Snowball. Alr Brd Buc Brr Crs Drr Ebr Gng Ggy Hst MWJ *Kei* May JMM McM Mhl Pri S&O Vl Wer.

SIMILAR NAMES. Early Snowball, Early White Snowball, Cox's Extra Early Snowball, Sharpe's Snowball, Extra Early Snowball.

SEEDSMEN'S SYNONYMS. *Early Six Weeks*, Buc Crs Evr Roc. *Early White Stone*, Gng. *Golden Ball*, Vl. *Six Weeks*, May. *White Globe*, Alr. *White Six Weeks*, Brd Wer. *White Stone*, Ggy.

Snow White Globe. Ar *Mls.* For similar names see *White Globe.*

Southern Prize. Bui Gdn G&T *Hly* Jac MWJ Kg Lan McM M&S Nef Wd WS.

Seedsmen's synonyms. *Dixie Land*, Gdn Jac.

Southern Seven Top. Blg Bui Gdn Mau Shw. For similar names see *Seven Top.*

Southern Snow White Globe. Hst Lan McM Wd WS.

Similar names. See *White Globe.*

Stubble. Bru.

Seedsmen's synonyms. *White Stone*, Bru.

Sweet German. Alx Bai Brt Btl Bkt Ber Bgg Brk Bgs Bri Brn Bui Brb Bur Brr C&J CE EBC Col CF Cox Crs Cur DD Eas Emr Evr Ewg Fmr Fqr Fst Fax Fer Fld Gdn GH Gra Ggy Gry Grw TG Hns Hrm Hrv Hlm MWJ J&S Jns K&W Lnr LB JL Loh Mas MV Mzy Neb Nef NI Pac Pg HP JMP Prn *Put* Ptt Por Pot Pri Raw Rs Sal S&R S&F Shw S&O Sie *Spf* Stk SB Trm Vl Vau Vk Wea Web W&D Wll Wlt Y&H.

Similar names. Improved Sweet German, Large Sweet German.

Seedsmen's synonyms. *Hanover*, Bdg Stk. *Large White*, Cur Nef Y&H. *Large White French*, Prn. *Long White French*, Bur Pac. *Rock*, Alx. *Russian*, Bdg Ggy Hrv. *White French*, Bdg Grw. *White Rock*, Bdg C&J. *White Swede*, Mzy Web.

Sweet Russian. Bdg Ggy.

Seedsmen's synonyms. *Hanover*, Bdg. *Sweet German*, Bdg Ggy Hrv. *White French*, Bdg. *White Rock*, Bdg.

Sweet Yellow Globe. Brr C&J. For similar names see *Yellow Globe.*

Teltow. Bgs Bur Dlw Fmr May Wer.

Similar names. German Teltow, Early Yellow Teltow, Moore & Simon's Golden Teltow, Golden Teltow.

Seedsmen's synonyms. *Berlin*, May. *Small Berlin*, Bur Fmr Wer.

Tennoji. Chl *Thr.*

Thorburn's Yellow Stone. Entered as *Yellow Stone.*

White American. Brr.

White Dutch. Bri Ebe Gra Hnt May.

Similar names. Early White Dutch, Early White Dutch Strap Leaf, Early Dutch, Extra Early Dutch.

White Egg. Alr Bai *Bak* Brd Bel Ber Blg Bou Bow Bgg Brk Bdg Bri Brn Bng Buc Brb Bur Brr Brw C&J CE Chl EBC C&B CF Cok Cox Crg Cur Dlw Dun Eas Emr Evr Fmr Fqr Fst Fax Fer Frd GN Ggy Grw TG Hrm Hrs Hrv Hen Hlm Hop Hse H&P MWJ J&M Jns K&W Ken Kg Koe Kos Kra Lam Lnr LB JL Loh Mgd Mas Mau May JCM McM Mls MV Mzy Neb *Nol* NI NK OV Pac Pg Prn Pne Pnt Ptt Poo Por Pot Pri Pug Raw Ree Rce Roc Rt Rs RP Sal S&R SC S&F *Shw* S&O Shm Sox S&H S&W Tat Tem TB Thr Thb AGT Til *Tpk* Trm T&B Vl Vau Vk Vin Wea Web W&D Wer Wll Wlt Wd Wdr WS Wyg

Similar names. Early White Egg, Extra Early White Egg.

Seedsmen's synonyms. *Extra Early White French*, Stk.

White Flat. Blg EBC Emr Fqr G&T Lan Shm.

Similar names. See *White Top Strap Leaf.*

Seedsmen's synonyms. *White Globe*, Emr.

White Flat Dutch. Bai Drw Hde Hrn Hrs H&C Hly Jns *Kei* Kra Man Old JMP Ren RP SC Sim Spf Trm Wd WS.

Similar names. See *Early Flat Dutch.*

Seedsmen's synonyms. *White Top Strap Leaf*, RP SC.

White Flat Dutch Strap Leaf. *RE* Fst May Wd.

Similar names. See *Early Flat Dutch.*

White Flat Norfolk. Brd. For similar names see *White Norfolk.*

White Flat Purple Top. Blg PM.

Similar names. See *Purple Top Strap Leaf.*

Seedsmen's synonyms. *Red Top White Flat,* Blg.

White Flat Purple Top Strap Leaf. Fqr.

Similar names. See *Purple Top Strap Leaf.*

White Flat Red Top. Blg. For similar names see *Red Top Strap Leaf.*

Seedsmen's synonyms. *White Flat Purple Top,* Blg.

White Flat Strap Leaf. CF Emr RE Grw TG JCM MV *Sox* Tat Thr.

Similar names. See *White Top Strap Leaf.*

White French. Bai Brk Bdg Bui Brr Del Emr Fqr GH Grw TG Hrs J&S Nol Ptt Pot Rce Rs S&F Tat Thr AGT Wea Wdr.

Similar names. Budlong's Improved White French, Extra Early White French, Large White French, Long White French, Budlong's White French.

Seedsmen's synonyms. *Hanover,* Bdg. *Long Cow Horn,* J&S. *Russian,* Bdg. *Sweet German,* Bdg Grw. *White Rock,* Bdg Bai Ptt Por Rce. *White Sweet,* Hrs.

White Globe. Alr Bel Bou Bru Bur Cle CA D&H Emr Ewg Fqr TG Hns H&C *Kei* Mau McK McM MV Pir Pri Ren Sim *Sox* Trm.

Similar names. White Globe Strap Leaf, Large White Globe, Large White Globe Strap Leaf, Early White Globe, Snow White Globe, Early Snow White Globe, Large Snow White Globe, Southern Snow White Globe, Landreth's Southern Snow White Globe. See also *Red Top White Globe* and *Purple Top White Globe.*

Seedsmen's synonyms. *Snowball,* Alr. *White Flat,* Emr.

White Globe Norfolk. M&S. For similar names see *White Norfolk.*

White Globe Strap Leaf. Bng Bur Fst Hlm Hop *Wat* Wd.

Similar names. See *White Globe.*

White Hardy Winter. *Bur.*

White Jersey Navet. Wd. For similar names see *Jersey Navet.*

White Lemon. M&S.

White Lily. Sal. For similar names see *Jersey Navet.*

White Milan. Bow Brk *Crs* Drw Ggy J&M Jns Nol Poo Rce Rs Sim TB Vau.

Similar names. See *Purple Top Milan.*

White Model. *D&H* Fqr May Thr.

Similar names. Early White Model, Northrup, King & Co.'s Early White Model.

White Nimble Dick. Sim. For similar names see *Nimble Dick.*

White Norfolk. Alx Bel Brk Cox Ebe Emr Ewg *Gls Kei* Min MV OV Pg Por S&R *Sox* Thm Thr *Tpk* Vin.

Similar names. White Flat Norfolk, Long White Norfolk, Large Norfolk, Large White Norfolk, Large White Flat Norfolk, White Globe Norfolk, Red Globe Norfolk, Large Red Top Norfolk, Royal Purple Top Norfolk.

White Six Weeks. Brd Cle Fmr Mau SB Wer. For similar names see *Six Weeks.*

Seedsmen's synonyms. *Nimble Dick,* SB. *Snowball,* Brd Wer.

White Spring. Stk.

White Stone. Bru *Cam* Fle Ggy May Pri Rce Sal Sim SB.

Similar names. See *Yellow Stone.*

Seedsmen's Synonyms. *Early Snowball,* Fle Ren Sim SB. *Snowball,* Ggy. *Stubble,* Bru.

White Stubble. Bru.

Seedsmen's synonyms. *White Stone,* Emr.

White Sweet. Bel Crs Gls Hrs Loh Til Vk.

White Sweet German. Alr Cle Ebe Gls Haw Hse Iow Kos JCM Nol Rce RP Sox Wd.

Similar names. Improved White Sweet German.

Seedsmen's synonyms. *White Sweet Waldo,* Ebe.

White Sweet Waldo. Ebe.

Seedsmen's synonyms. *White Sweet German*, Ebe.

White Tankard. D&H.

Seedsmen's synonyms. *Cow Horn*, D&H.

White Top Flat Strap Leaf. Fqr S&F. For similar names see *White Top Strap Leaf.*

White Top Strap Leaf. Bai Brd Brk Buc *CE* Cle Crs Drm RE Gls Gra Hrm Hrv K&W Ken Liv JL Mzy Pnt Pri Raw Rce Roc RP SC S&O Sox Wea Web.

Similar names. White Top Flat Strap Leaf, Early White Top Strap Leaf, Early White Top, Early Flat White Top, White Flat, White Flat Strap Leaf, Early White Flat Strap Leaf.

Seedsmen's synonyms. *Early Flat Dutch*, Drm Liv JL Pnt Shw. *White Flat Dutch*, RP SC.

Wood's Improved Red Top Globe. Entered as *Red Top Globe.*

Yellow Aberdeen. Bai Bak Brt Btl Bkt Blg Brk Bdg Bri Bur Brr *Cam CE* Cle Col CF Cok Cox Crg Cur Ebe *Eic* Elt Emr Fmr Fqr Fst Frd Gry G&T Grw TG Hns Hrm Hrs Hst Haw Hly Hlm H&P Iow MWJ J&S *Jns* K&W Ken Kg Kos Kra Lan Lnr PM Mas Mau May JCM McM Mic Mhl Min MV Mzy Neb Nef Nol OV Pac JMP Pir Ptt Poo Por Pot Pri Qkr Ren Rce Rt Rs Sal S&R S&F Sox Stk SB Stw S&H S&W Tat TB Thm Thr AGT *Tpk Vl* Vau Vk Vin Wat Wea Wll Wlt Wdr Wyg.

Similar names. Improved Yellow Aberdeen, Large Yellow Aberdeen, Green Top Yellow Aberdeen, Purple Top Yellow Aberdeen.

Seedsmen's synonyms. *Purple Top Yellow*, Drr. *Scotch Yellow*, Btl Cox Lan HP JMP Stw, etc. *Bullock Green Top*, SB.

Yellow Ball. Hnt. For similar names see *Golden Ball.*

Yellow Finland. Ggy M&S *Thr.*

Similar names. Early Yellow Finland.

Yellow Globe. Alx Anb Blg Bow Bgg Brk Bdg Brn Brb CE EBC Cle C&B Cur DD Drr Drm Elt Emr Fqr Fer Gls Ggy G&T Grw TG Hst Hen Hnt *MWJ* J&S Jns *Lnr* Liv Mns Mas May McM Mhl MV M&S Mzy Nef Nol Pir *Pnt* Ptt Por Pri Rce Rs S&R SC S&F S&O Sox Spf S&H Thr *Tlh* Wea W&D Wlt Wdr Wd.

Similar names. Improved Yellow Globe, Large Yellow Globe, Sweet Yellow Globe, Early Yellow Globe, Golden Globe.

Seedsmen's synonyms. *Amber Globe*, Bow Hst J&S Nol S&R Spf, etc. *Golden Ball*, Gls. *Large Amber Globe*, Wd. *Orange Globe*, DD. *Yellow Stone*, Bdg Brk Drr Fqr Hst Wea, etc.

Yellow Malta. Thr W&D. For similar names see *Maltese.*

Yellow Montmagny. W&D.

Yellow Scotch. Btl Cle Cox G&T Kg Lan Nef JMP Stw.

Similar names. Green Top Scotch, Purple Top Scotch.

Seedsmen's synonyms. *Yellow Aberdeen*, Bdg Btl Cox Lan JMP Stw, etc.

Yellow Stone. Bai Bkt Brk Bdg Bri Bng Brr *CE* C&B CF Cur Drm Emr Fqr Fer Gry Grw TG Hrm *Hrs* Hen Hse Iml Jns *Kei Lnr* Liv May MV Mzy *Nol* Pg Prn Ptt Pri Raw Ree Rce RP Sal S&F Sim Sox S&W Thr Vk Vin Wea W&D Wdr.

Similar names. Early Yellow Stone, Thorburn's Yellow Stone, Golden Stone, Early Golden Stone, Black Stone, White Stone, Early White Stone.

Seedsmen's synonyms. *Amber Globe*, Hst. *Large Yellow Globe*, Raw. *Yellow Globe*, Bdg Brk Drr Fqr Hst Wea.

TURNIP (RUTA-BAGA).

All Gold. GN Sal.

American. Anb Bai Brt Bkt Brk Bri Chl Col DD Fmr Ggy Gry Hst Iow MWJ *Kg* Kra Lnr Liv Man *Nol* Old Prn Pot Pug S&W *Tem* Thb W&D Yng.

Similar names. Improved American, American Yellow, Improved American

Purple Top, Wood's Improved American Purple Top, Wood-Stubb's Improved American Purple Top, American Imperial Purple Top, American Purple Top Yellow, Improved American Purple Top Yellow, American Purple Top.

Seedsmen's synonyms. *Swedish*, Prn.

American Breadstone. Sim. For similar names see *Breadstone.*

American Imperial Purple Top. GH.

Similar names. See *American, Imperial Purple Top.*

American Purple Top. Brd Bng C&J Cam CE Cle C&B Drr Elt Emr Fer Frd Hrn Hen Liv PM Mns Mas JCM JMM Mls MV Mzy Neb Nef HP Por Raw Rce RP S&R *Sie* Sox Vin Wd WS Y&H.

Similar names. See *Purple Top, American.*

Seedsmen's synonyms. *Improved Long Island*, Fer Lam. *Long Island*, Gls.

American Purple Top Yellow. Alr Ar Bui *Cam* GH TG JL Loh Pnt SC Vl.

Similar names. See *American, Purple Top Yellow.*

American Yellow. Pir AGT. For similar names see *American.*

Arctic. D&H.

Aroostook. Jer.

Aroostook Improved. Entered as *Aroostook.*

Ashcroft. Pri.

Similar names. Ashcroft's Improved Purple Top, Ashcroft's Purple Top.

Ashcroft's Improved Purple Top. Entered as *Ashcroft's Purple Top.*

Ashcroft's Purple Top. Sim. For similar names see *Ashcroft.*

Bangholm. Bow Fer *Lnr McK.*

Similar names. Bangholm Purple Top, Bangholm Improved Purple Top.

Bangholm Improved Purple Top. Entered as *Bangholm Purple Top.*

Bangholm Purple Top. Bru RE Ewg Gra Kei Ren Sim.

Similar names. See *Bangholm.*

Bell's World's Fair. Entered as *World's Fair.*

Bloomsdale. Dlw Gfg MWJ Koe Lan Mic Stw Tem Wer.

Bon Air. Alx.

Similar names. Improved Bon Air.

Brandon. McK.

Breadstone. Bkt *Bel* Bur Brr Cam Chl Cle Col D&H Frd Gls TG Hrs Hst Hbt *MWJ* J&S Jns *Kg* Mls Pac Raw Ren Rce Rt Rs Shm Sie Tem Thb Vl Vau Wd Wdr.

Similar names. Burpee's Breadstone, American Breadstone.

Seedsmen's synonyms. *Budlong*, Cle J&S Wd TG Wdr. *Budlong's Improved*, Raw. *White Rock*, Gls.

Bronze Top. Kei.

Similar names. Halewood Bronze Top, Hartley's Improved Bronze Top, Hazard Bronze Top.

Bruce's New Century. Entered as *New Century.*

Bruce's Purple Top. Bru. For similar names see *Purple Top.*

Buckbee's Giant. Buc. For similar names see *Giant.*

Buckbee's Mammoth White Russian. Entered as *Mammoth White Russian.*

Budlong. Brk Brr Cle CF Drr Fmr Ggy Gry TG J&S JMM Rs Shm Thm Wea Wd Wdr Y&H.

Similar names. Improved Budlong, Budlong White, Budlong White Rock, Budlong Improved White Rock.

Seedsmen's synonyms. *Breadstone*, Cle TG J&S Raw Wd Wdr.

Budlong Improved White Rock. Entered as *Budlong White Rock.*

Budlong White. Fqr. For similar names see *Budlong.*

Budlong White Rock. Brt Brw *CE* Fer Frd Hse *Lnr* Pot Rce.

Similar names. See *White Rock, Budlong.*

Buist's Improved Purple Top Yellow. Entered as *Buist's Purple Top Yellow.*

Buist's Purple Top Yellow. Bui. For similar names see *Purple Top Yellow.*

Burpee's Breadstone, Burpee's Improved Purple Top Yellow. Entered as *Breadstone* and *Burpee's Purple Top Yellow.*

Burpee's Purple Top Yellow. Bur. For similar names see *Purple Top Yellow.*

Burr's Improved Purple Top. Entered as *Burr's Purple Top.*

Burr's Purple Top. Brr. For similar names see *Purple Top.*

Canadian Gem. D&H.

Carter's Elephant, Carter's Imperial, Carter's Imperial Hardy, Carter's Imperial Hardy Purple Top, Carter's Imperial Hardy Purple Top Yellow, Carter's Imperial Purple Top, Carter's Improved Purple Top, Carter's Improved Yellow. Entered as *Elephant, Imperial, Imperial Hardy, Imperial Hardy Purple Top, Imperial Hardy Purple Top Yellow, Imperial Purple Top, Carter's Purple Top,* and *Carter's Yellow.*

Carter's Model Purple Top Yellow. M&S. For similar names see *Green Top.*

Carter's Purple Top. Cle Eas TG. For similar names see *Purple Top.*

Carter's Yellow. Ebe. For similar names see *Yellow Swede.*

Champion. Bru Bng Fer Kei Lan Mau McK *Nol* HP Pri W&D.

Similar names. Extra Early Champion, Sutton's Champion, Sutton's Improved Champion, Scottish Champion, Keith's Scottish Champion, Sutton's Champion Purple Top, Champion Purple Top, Simmers' Champion Purple Top.

Seedsmen's synonyms. *Yellow*, Lan HP.

Champion Purple Top. Bow *CE* D&H Ewg GH Gra Hse RHJ Ree Ren Rce Sim SB Thr Y&H.

Similar names. See *Champion.*

Cox's Improved Yellow. Entered as *Cox's Yellow.*

Cox's Yellow. Cox. For similar names see *Yellow Swede.*

Cross. Kei.

Cross' Improved. Entered as *Cross.*

Currie's Improved Purple Top. Entered as *Currie's Purple Top.*

Currie's Purple Top. Cur. For similar names see *Purple Top.*

Defiance. *Sim.*

Dreer's Improved Purple Top. Entered as *Dreer's Purple Top.*

Dreer's Purple Top. Drr. For similar names see *Purple Top.*

Drummond. *Lnr* McK SB.

Drummond's Purple Top. Bru Ewg Fer Gra Ren Sim.

Similar names. See *Purple Top.*

Early Melting. Sim.

Similar names. Simmers' Early Melting.

East Lothian Purple Top. *Bru* D&H Kei Ren Sim SB.

Similar names. Improved East Lothian Purple Top.

Elephant. Ber Bri Bru Buc Bui Bur Brr *CE* Chl D&H RE Ewg Gra Ggy Hbt J&S Ker *Kg* May McK Pac Pg Qkr Ren Rce Roc Shm Sim Tem Thm.

Similar names. Carter's Elephant, May's Elephant.

Seedsmen's synonyms. *Hurst's Monarch*, Fer. *Monarch*, Bru Buc Bur Fer J&S Sim, etc. *Tankard*, Fer. *Monarch King*, McK. *Jumbo*, McK. *Monarch Tankard*, Pg.

Evans' Ontario Purple Top. Entered as *Ontario Purple Top.*

Extra Early Champion. May. For similar names see *Champion.*

Faust's Improved Purple Top Yellow. Entered as *Faust's Purple Top Yellow.*

Faust's Purple Top Yellow. Fst. For similar names see *Purple Top Yellow.*

Ferry's Improved Purple Top, Ferry's Improved Purple Top Yellow. Entered as *Ferry's Purple Top* and *Ferry's Purple Top Yellow.*

Ferry's Purple Top. Tpk. For similar names see *Purple Top.*

Ferry's Purple Top Yellow. Fer. For similar names see *Purple Top Yellow.*

Fettercairn Green Top. Bru Sim. For similar names see *Green Top.*

French Improved Purple Top. Entered as *French Purple Top.*

French Purple Top. Vin. For similar names see *Purple Top.*

French Yellow. Ptt Wdr. For similar names see *Yellow Swede.*

Fry's Purple Top. Mhl. For similar names see *Purple Top.*

Giant. Roc.

Similar names. Buckbee's Giant, Webb's Giant King.

Gloucester. SB.

Golden Heart. Hen.

Similar names. Henderson's Golden Heart.

Green Top. Ewg Gra *Kei* McK Ren.

Similar names. Green Top White, Fettercairn Green Top, Keith's Improved Green Top, Keith's Green Top, Hazard's Green Top, Carter's Model Purple Top Yellow.

Green Top White. Bgs. For similar names see *Green Top.*

Green Top Yellow. Rce. For similar names see *Yellow Swede.*

Griffing's Family. *Gfg.* For similar names see *Thorburn's Family.*

Griffith & Turner's Improved Purple Top. Entered as *Griffith & Turner's Purple Top.*

Griffith & Turner's Purple Top. G&T. For similar names see *Purple Top.*

Halewood Bronze Top. *RE* McK Ren SB. For similar names see *Bronze Top.*

Hall's Westbury, Hall's Westbury Purple Top. Entered as *Westbury* and *Westbury Purple Top.*

Hammond's Improved Purple Top, Hammond's Improved Yellow Mammoth. Entered as *Hammond's Purple Top* and *Hammond's Yellow Mammoth.*

Hammond's Purple Top. Ham. For similar names see *Purple Top.*

Seedsmen's synonyms. *Long Island,* Ham.

Hammond's Yellow Mammoth. Ham. For similar names see *Yellow Swede.*

Harris' White Purple Top. Hrs. For similar names see *Purple Top.*

Hartley. Ggy.

Similar names. Hartley Bronze Top, Hartley Improved Bronze Top.

Hartley Bronze Top. Bru D&H RE Gra McK Ren Sim SB.

Similar names. See *Hartley, Bronze Top.*

Hartley Improved Bronze Top. Entered as *Hartley Bronze Top.*

Hazard. SB.

Similar names. Hazard Bronze Top, Hazard Green Top.

Hazard Bronze Top. Ren. For similar names see *Hazard, Bronze Top.*

Hazard Green Top. Sim. For similar names see *Hazard, Green Top.*

Heavy Cropping. Mls.

Similar names. Maule's Heavy Cropping.

Henderson's Golden Heart, Henderson's Improved Long Island. Entered as *Golden Heart* and *Long Island.*

Highland Prize. Sim SB.

Similar names. Steele-Briggs' Highland Prize.

Hurst's Monarch. Entered as *Monarch.*

Imperial. Dun Emr Evr Ggy Gry Jns Kei Kra Man May JCM McK Pne RP Sal S&F Sim Vau.

Imperial Hardy. Bgg Bui Bur *CE* Col Cox Elt RE Fqr Fst Fax GH Hrm Hst Hbt K&W Kos Lnr Mau Mis MV Mzy Neb Qkr Rce Shm Sox *Spf* Vl Web.

Similar names. See *Imperial Purple Top.*

Imperial Hardy Purple Top. Ger SB. For similar names see *Imperial Purple Top.*

Imperial Hardy Purple Top Yellow. Wll.

Similar names. See *Imperial Purple Top Yellow.*

Imperial Purple Top. Bel Bgs Brn Bru Crs Cur Ewg Fer Fle Gls Gra Hrs H&P Lea Ren.

Similar mames. Carter's Imperial Purple Top, Carter's Imperial, American Imperial Purple Top, Imperial Hardy, Carter's Imperial Hardy, Imperial Hardy Purple Top, Carter's Imperial Hardy Purple Top, Vick's Imperial Purple Top Yellow, Carter's Imperial Hardy Purple Top Yellow, Imperial Hardy Purple Top Yellow, Imperial Purple Top Yellow.

Imperial Purple Top Yellow. Vk. For similar names see *Purple Top Yellow.*

Improved American, Improved American Purple Top, Improved American Purple Top Yellow, Improved Bon Air, Improved Bronze Top, Improved Budlong, Improved East Lothian Purple Top, Improved Graystone, Improved Hall's Westbury, Improved Hazard, Improved Laing, Improved London, Improved Long Island, Improved Long Island Purple Top, Improved Long Island Yellow, Improved Monarch, Improved Purple Top, Improved Purple Top Yellow, Improved White Rock, Improved Yellow Swede. Entered as *American*, *American Purple Top*, *American Purple Top Yellow*, *Bon Air*, *Bronze Top*, etc.

Jumbo. McK SB.

Similar names. Steele-Briggs' Jumbo.

Seedsmen's synonyms. *Elephant*, McK. *Monarch King*, McK.

Kangaroo. Ren *Sim.*

Similar names. Rennie's Kangaroo.

Keith's Green Top. Kei. For similar names see *Green Top.*

Keith's Improved Green Top, Keith's Scottish Champion. Entered as *Keith's Green Top* and *Scottish Champion.*

Kelway. *Sie.*

Kelway's Longport Mammoth. Entered as *Longport Mammoth.*

King of Swedes. RHJ *Kei McK* Ren Sim.

Similar names. See *Webb's Giant King.*

Knowfield Purple Top. Ren Sim. For similar names see *Purple Top.*

Laing. Bai *Bgg* C&B Ebe Evr Gra Ggy Hen Jns Kei Kra Lnr Mzy Neb Nef Ptt Pug Rce Shm SB Thm Thr Vl Vau Vin.

Similar names. See *Laing's Purple Top.*

Laing's Early. Emr S&F. For similar names see *Laing's Purple Top.*

Laing's Improved Purple Top, Laing's Improved Purple Top Strap Leaf, Laing's Improved Strap Leaf, Laing's Improved Yellow. Entered as *Laing's Purple Top*, *Laing's Purple Top Strap Leaf*, *Laing's Strap Leaf*, and *Laing's Yellow.*

Laing's Purple Top. Brd Bow Bgs Brn Bru Cle CF Ewg Fer Ger Grw Hrv May Pks Pne Ren Sal Sim Spf *Tpk.*

Similar names. Laing's Improved Purple Top, Laing's Improved Purple Top Strap Leaf, Laing's Purple Top Yellow, Laing's Yellow, Laing's Improved Yellow, Laing's Early, Improved Laing, Laing, Laing's Improved Strap Leaf, Laing's Strap Leaf.

Laing's Purple Top Strap Leaf. Crs Vk.

Similar names. See *Laing's Purple Top.*

Laing's Purple Top Yellow. TG. For similar names see *Laing's Purple Top.*

Laing's Strap Leaf. Cox. For similar names see *Laing's Purple Top.*

Laing's Yellow. Bgg Gng. For similar names see *Laing's Purple Top.*

Landreth's Improved Purple Top Yellow, Landreth's Market Garden. Entered as *Purple Top Yellow* and *Market Garden.*

Landreth's Purple Top Yellow. Lan. For similar names see *Purple Top Yellow.*

Large Russian. Wd. For similar names see *White Russian.*

Large Sweet German. *Tpk.*

Large White. Bur Cam J&S Liv May Mls Shw *Spf* Wd

Similar names. See *White Swede.*

Large White Purple Top. SC.

Similar names. See *White Swede, Purple Top.*

Large White Rock. Brt. For similar names see *White Rock.*

London. Fqr S&F.

Similar names. Improved London, London Purple Top.

London Purple Top. Ggy. For similar names see *London, Purple Top.*

Long Island. Brb Elt Fer Ham Hen Jer Lam Loh Man Nol Poo Rs S&W Wea W&D Wdr Yng Y&H.

Similar names. Improved Long Island, Henderson's Improved Long Island, Long Island Purple Top, Improved Long Island Purple Top, Improved Long Island Yellow, Long Island Smooth Yellow, Long Island Yellow.

Seedsmen's synonyms. *American Purple Top,* Fer Lam Gls. *Hammond's Improved Purple Top,* Ham.

Long Island Purple Top. Anb Brk Bri Cle C&B CF Drm Fmr Gls J&S Liv Mgd Ree.

Similar names. See *Long Island.*

Long Island Smooth Yellow. Ptt. For similar names see *Long Island.*

Long Island Yellow. Brw. For similar names see *Long Island.*

McKenzie's Northwestern Purple Top. Entered as *Northwestern Purple Top.*

McMillan's Improved Purple Top. Entered as *McMillan's Purple Top.*

McMillan's Purple Top. McM. For similar names see *Purple Top.*

Mammoth Clyde Purple Top. Ewg. For similar names see *Purple Top.*

Mammoth Russian. Lam. For similar names see *White Russian.*

Seedsmen's synonyms. *White,* Lam.

Mammoth White Russian. Buc Kg Roc. For similar names see *White Russian.*

Market Garden. *Lan.*

Similar names. Landreth's Market Garden.

Marquis of Lorne. RE.

Similar names. Marquis of Lorne Purple Top.

Marquis of Lorne Purple Top. Bru. For similar names see *Marquis of Lorne.*

Marshall's Purple Top. Ren Sim. For similar names see *Purple Top.*

Maule's Heavy Cropping. Mau. For similar names see *Heavy Cropping.*

May's Elephant, May's Improved Purple Top. Entered as *Elephant* and *May's Purple Top.*

May's Purple Pop. May OV. For similar names see *Purple Top.*

Meyer's Purple Top Beauty. Bri J&S. For similar names see *Purple Top Beauty.*

Monarch. Ber Bri Bru Buc Bui Bur RE Fmr Fer Frd GH Hbt Hop Iow RHJ J&S *Kei Kg* Kra Lam Lnr LB Loh May MV Pac Pg HP Por Qkr Ree Roc S&R Shm Sim Sox *Tpk* Vau.

Similar names. Improved Monarch, Monarch Purple Top, Hurst's Monarch, Monarch King.

Seedsmen's synonyms. *Carter's Elephant,* Fer Kei. *Tankard,* Fer Lam Por S&R LB Loh, etc. *Elephant,* Ber Bru Bui Bur J&S Pac, etc. *Hurst's Monarch,* Fer.

Monarch King. McK. For similar names see *Monarch.*

Seedsmen's synonyms. *Elephant,* McK. *Jumbo,* McK.

Monarch Purple Top. Gls. For similar names see *Monarch.*

Monarch Tankard. *Lnr* Pg.

Seedsmen's synonyms. *Elephant,* Pg.

New Century. *Bru.*

Northwestern Purple Top. *McK.*

Ontario Purple Top. RE. For similar names see *Purple Top.*

Prize Winner. CE D&H LB TB Til.

Purple Top. Alx Brd Blg *Chl* Crg Cur *DD* Eic GH Gng Ggy Hse Jac J&M Ken Man JMP Pne *Rtk* S&H Wat.

SIMILAR NAMES. Bruce's Purple Top, Carter's Purple Top, Drummond's Purple Top, Fry's Purple Top, Knowfield Purple Top, London Purple Top, Mammoth Clyde Purple Top, Marshall's Purple Top, Steele-Briggs' Purple Top, Evans' Ontario Purple Top, Ontario Purple Top, Improved Purple Top, Burr's Improved Purple Top, Burr's Purple Top, Carter's Improved Purple Top, Currie's Improved Purple Top, Currie's Purple Top, Dreer's Improved Purple Top, Dreer's Purple Top, Ferry's Improved Purple Top, Ferry's Purple Top, Griffith & Turner's Improved Purple Top, Griffith & Turner's Purple Top, Hammond's Improved Purple Top, Hammond's Purple Top, May's Improved Purple Top, May's Purple Top, McMillan's Improved Purple Top, McMillan's Purple Top, Sharpe's Improved Purple Top, Sharpe's Purple Top, Thorburn's Improved Purple Top, Thorburn's Purple Top, Wernich's Improved Purple Top, Wernich's Purple Top, Wood's Improved American Purple Top, Wood-Stubbs' Improved American Purple Top, Improved American Purple Top, French Improved Purple Top, French Purple Top, Harris' White Purple Top, Purple Top Mammoth, Large White Purple Top. See also *Purple Top Yellow.*

Purple Top Beauty. M&S.

Purple Top Mammoth. Ren *SB.* For similar names see *Purple Top.*

SEEDSMEN'S SYNONYMS. *Improved Graystone,* Ren.

Purple Top Yellow. Btl Ber Buc Bur CF Cok CA D&C Gdn TG Hns Hde Haw Hbt Hlm J&S Lam Lan LB Loh *Mel* Mhl Min M&S Nol Pac Pug Qkr Roc Shw Tat Tex Til *Vl* Wlt Wd Y&H.

SIMILAR NAMES. Buist's Improved Purple Top Yellow, Buist's Purple Top Yellow, Burpee's Improved Purple Top Yellow, Burpee's Purple Top Yellow, Faust's Improved Purple Top Yellow, Faust's Purple Top Yellow, Ferry's Improved Purple Top Yellow, Ferry's Purple Top Yellow, Landreth's Improved Purple Top Yellow, Landreth's Purple Top Yellow, American Purple Top Yellow, Improved American Purple Top Yellow, Improved Purple Top Yellow.

Rennie's Kangaroo. Entered as *Kangaroo.*

Scotch Yellow. Stw. For similar names see *Yellow Swede.*

Scottish Champion. Kei Sim. For similar names see *Champion.*

Shamrock. Bgg Brk C&J *CE* Cle Emr Fqr Ggy Gry *Kei* Ken Man McK Mzy Neb Rce Rs S&F Wll WS.

SIMILAR NAMES. Shamrock Purple Top, Shamrock Improved Purple Top, Shamrock Purple Top Yellow.

Shamrock Improved Purple Top. Entered as *Shamrock Purple Top.*

Shamrock Purple Top. *Bru* CF D&H Ewg Gra Grw Ren Sim SB.

SIMILAR NAMES. See *Shamrock.*

Shamrock Purple Top Yellow. TG. For similar names see *Shamrock.*

Sharpe's Improved Purple Top. Entered as *Sharpe's Purple Top.*

Sharpe's Purple Top. Bru *Ren* Sim SB. For similar names see *Purple Top.*

Shepherd's Golden Globe. Fer Lam.

Simmers' Champion Purple Top, Simmers' Defiance, Simmers' Early Melting. Entered as *Champion Purple Top, Defiance,* and *Early Melting.*

Skirving. Bai *Eas* Fle *Kg* Lam *McK* Mzy Ptt Pri Vau Vin W&D.

SIMILAR NAMES. See *Skirving's Purple Top.*

Skirving's Improved, Skirving's Improved Liverpool Purple Top, Skirving's Improved Purple Top. Entered as *Skirving, Skirving's Liverpool Purple Top,* and *Skirving's Purple Top.*

Skirving's Liverpool. Brn Sal. For similar names see *Skirving's Purple Top.*

Skirving's Liverpool Purple Top. Bgs.

SIMILAR NAMES. See *Skirving's Purple Top.*

Skirving's Purple Top. Anb Brd Bow Brk Bru Brb CE Cle CF Cox Crs Cur Del DD Drr Dun Ewg Fmr Fst GH Gra Ggy Gry Hrm Hrn Hrv RHJ Kei K&W Kos Lnr Man Mas May JMM Mls Neb OV Pne Por Ren Rce RP S&R S&O Shm Sim Spf SB AGT *Tpk* Trm Vl Wea Web W&D Wyg Y&H.

Similar names. Skirving, Skirving's Improved Purple Top, Skirving's Purple Top Yellow, Skirving's Improved, Skirving's Improved Liverpool Purple Top, Skirving's Liverpool, Skirving's Liverpool Purple Top.

Skirving's Purple Top Yellow. Grw TG Pir SC.

Similar names. See *Skirving's Purple Top.*

Steele-Briggs' Highland Prize, Steele-Briggs' Jumbo, Steele-Briggs' Westbury. Entered as *Highland Prize*, *Jumbo*, and *Westbury.*

Steele-Briggs' Perfection. SB.

Steele-Briggs' Purple Top. SB. For similar names see *Purple Top.*

Sutton's Champion, Sutton's Champion Purple Top, Sutton's Improved Champion. Entered as *Champion*, *Champion Purple Top*, and *Champion.*

Sweet Rock. Alx. For similar names see *White Rock.*

Sweet Russian. Bow Fer Hrv LB Loh Old Pg Til Vin.

Similar names. See *White Russian.*

Seedsmen's synonyms. *White*, Bow Fer LB Loh Old Pg Vin. *Large White*, S&H.

Sweet White Russian. Brd Brn RHJ Jns Sal Shm.

Similar names. See *White Russian.*

Thorburn Family. *Ebr* Thr.

Similar names. Griffing's Family.

Thorburn's Improved Purple Top. Entered as *Thorburn's Purple Top.*

Thorburn's Purple Top. Thr. For similar names see *Purple Top.*

Twentieth Century. Bui.

Twentieth Century Rock. Brt. For similar names see *White Rock.*

Universal Purple Top. *Sim.*

Vaughan's Improved. Vau.

Vick's Imperial Purple Top Yellow. Entered as *Imperial Purple Top Yellow.*

Wait's Improved. Y&H.

Wait's Improved Purple Top Yellow. Entered as *Purple Top Yellow.*

Webb's Giant King. D&H.

Similar names. King of Swedes, Giant, Buckbee's Giant.

Wernich's Improved Purple Top. Entered as *Wernich's Purple Top.*

Wernich's Purple Top. Wer. For similar names see *Purple Top.*

Westbury. Brn Bru CF RE Kei *McK* Pri Sim SB Vk.

Similar names. Hall's Westbury, Improved Hall's Westbury, Hall's Westbury Purple Top, Westbury Improved Purple Top, Steele-Briggs' Westbury, Westbury Purple Top.

Westbury Improved Purple Top. Entered as *Westbury Purple Top.*

Westbury Purple Top. D&H Ren. For similar names see *Westbury.*

West Norfolk. Fer *RHJ* Pg.

White-Fleshed. Thr.

White-Fleshed Purple Top. Dlw Min. For similar names see *White Swede.*

White Hanover. Eic.

White Rock. Bai Bdg Brr C&J *CE* Cle CF Emr Gls Ggy Hrm Mau Pot Rce Rs Tat Thr.

Similar names. Improved White Rock, Budlong's Improved White Rock, Budlong's White Rock, Large White Rock, Sweet Rock, Twentieth Century Rock.

Seedsmen's synonyms. *Breadstone*, Gls.

White Russian. Alx Anb Bgs CE Crs Frd Ggy Hop Iml Ken Liv MV Nef NI Por Rce S&R Sie Sox *Spf.*

Similar names. Sweet White Russian, Sweet Russian, Large Russian, Mammoth Russian, Mammoth White Russian, Buckbee's Mammoth White Russian.

Seedsmen's synonyms. *Large White,* Anb Bui Liv. *White Swede,* Bdg Frd Rce Sie Sox MV. *White Sweet,* Crs. *White Sweet Green Top,* Bgs.

White Short Top. Hrs. For similar names see *White Swede.*

White Swede. Alx Bai Bou Bow *Bgg* Bdg Bru *Cam CF* CA D&H Fer Frd Gdn Ggy *Kei* Lam Lnr LB McK MV Old Pg Pks Pri Ren Rce Sie Sox Tat Thr Trn Vin Web.

Similar names. White-Fleshed Purple Top, White Short Top, Large White, Large White Purple Top.

Seedsmen's synonyms. *Mammoth Russian,* Lam. *Russian,* Alx. *Sweet German,* Mzy Web. *Sweet Russian,* Bow Fer Old LB Loh Vin, etc. *White French,* McK. *White Russian,* Bdg Frd Rce MV Sie Sox. *Large White French,* Ggy.

White Sweet. Crs Hrs.

Seedsmen's synonyms. *White French,* Hrs. *White Russian,* Crs.

White Sweet Green Top. Bgs.

Seedsmen's synonyms. *White Russian,* Bgs.

White Tankard. D&H Ggy Kei.

Wood-Stubbs' Improved American Purple Top. Entered as *American Purple Top.*

Wood's Improved American Purple Top. Entered as *American Purple Top*

World's Fair. Bel.

Similar names. Bell's World's Fair.

Yellow Globe. May OV *Thm Tpk.* For similar names see *Yellow Swede.*

Yellow Swede. Bou Bow Fer G&T *Lam* Lan LB Loh McK NI HP Tpk Wer.

Similar names. Yellow Globe, Improved Yellow, French Yellow, Carter's Improved Yellow, Carter's Yellow, Cox's Improved Yellow, Cox's Yellow, Green Top Yellow, Purple Top Yellow, Scotch Yellow, Hammond's Improved Yellow Mammoth, Hammond's Yellow Mammoth.

Seedsmen's synonyms. *Champion,* Lan HP. *Purple Top Swede,* Bow.

Yellow Tankard. Fer Frd Hop Lam LB Loh Pg Por S&R Thr.

Seedsmen's synonyms. *Carter's Elephant,* Fer. *Hurst's Monarch,* Fer. *Monarch,* Fer Frd Lam LB Loh S&R, etc.

WATERMELON.

Alabama Sweet. *Btl* Eic *Ger* Hde *J&M J&S Mau Shw* Spf Tat Tex Thm.

Similar names. Pride of Alabama, Eichling's Alabama Sweet.

American Champion. Ber Bru Hlm Raw Shm Tat.

Seedsmen's synonyms. *Kolb's Gem,* Ber Bru Bur Frd Hlm Raw.

American Queen. Ar H&P Lan. For similar names see *Cuban Queen.*

Apple Pie. Bow *D&H* Fqr Iow Kei M&S Old Rtk S&F Thr Vin.

Seedsmen's synonyms. *Colorado Citron,* Bow Fqr Thr.

Archias' Arkansas Beauty, Archias' Improved Dark Icing. Entered as *Arkansas Beauty* and *Dark Icing.*

Arkansas Beauty. Ar. For similar names see *Arkansas Traveler.*

Arkansas Traveler. Gfg Hst MWJ Koe Lan Rce Rim *Shw* Stw.

Similar names. Archias' Arkansas Beauty, Arkansas Beauty.

Arrington's Early Market. CA. For similar names see *Early Market.*

Arrington's Sweets. CA. For similar names see *Kleckley Sweets.*

Augusta Early Round White. Alx. For similar names see *Augusta Round White.*

Augusta Extra Early. MWJ. For similar names see *Augusta Round White.*

Augusta Rattlesnake. Alx Bou Bui Gdn Hst Jac *Shw* Wlt.

Similar names. See *Rattlesnake.*

Seedsmen's synonyms. *Striped Gypsy,* Bui.

Augusta Round White. Hst J&M Thm Wlt.

Similar names. Augusta Early Round White, Augusta Extra Early, Augusta Sugar Loaf.

Augusta Sugar Loaf. Alx Wlt.

Similar names. See *Augusta Round White, Sugar Loaf.*

Benjestown. *Shw.*

Black Boulder. Bru Brw *G&T* Hlm J&S Lan MV M&S *Ree* Sox *Spf Tat* Thr.

Black Diamond. Alr Ar Brd Btl Bkt Ber Buc CA D&H Eic *Fmr Fld* Frd Hns Hde Hst Hly *Iow* J&S *Kg* Lnr May *Mel Mic* MV NK Pac *Rtk* Ree Rob Roc Shw Shm Sox Spf Tat Tex TB Thr *Tpk* Vau Vk.

Similar names. Vaughan's Black Diamond, Tait's Improved Black Diamond.

Black-Eyed Susan. Frd J&S *Kg* Lam Rob *Shw.*

Black Spanish. Anb Ar Bai Btl Bkt Bow Bgg Brk Bdg Brn Bng Bur Brw C&J CE Cle CF Cox Crs Del DD Drr Ebe Elt Emr RE Ewg Fqr Frd Ger Gls GH Gra Gry TG Hns Hrm Hrn Hrv H&P Jns *Kei* K&W Ken Lea Lnr LB Liv Mas May JCM JMM Min MV Mzy Nef Pac Prn Pnt Por Pot Pri Raw Ree Ren Rob Roc Rs Sal S&R Shw S&O Shm Sim Sox SB S&W Thr Til Tpk T&B Vl Vau Vin Wea W&D Wyg Y&H.

Similar names. Round Black Spanish.

Blue Gem. Alx Blg Bui Cle CA *Evr* Gdn Gfg G&T Hst Iow MWJ J&M J&S *Kg* Mgd Pnt Rob Shw Shm Spf Tat Tex *Thr* Wlt Wd WS.

Similar names. See *Kolb's Gem.*

Seedsmen's synonyms. *Georgia Blues,* CA. *Gloussier,* Wlt.

Boss. Anb Bai Bow *Bgg* Bri Bru Buc Bur Brr Cle C&B Col CF Cox Crs Cur Dlw DD Drr Emr RE Fst Gdn GH Gng Ggy Grw TG Hen Hnt H&P J&S Kg Lan Lnr LB Liv JL Man PM Mau May JCM JMM Mic Min MV Mzy OV Pg Ree Rce Rim Rob Roc Rt Rs RP S&O Shm Sox SB Stw S&W Thr AGT Til Trm Vin Vk W&D Wer Wd.

Similar names. Landreth's Boss.

Bradford. CA *MWJ* Lan *Pnt Rim* Shw *Stk* Thm.

Similar names. Carolina Bradford.

Branch's Superb Rattlesnake. Entered as *Rattlesnake.*

Briggs' Early. Bgs. For similar names see *Extra Early.*

Buckbee's Ice Cream, Buckbee's Perfected Kolb's Gem. Entered as *Ice Cream* and *Kolb's Gem.*

Bunker Hill. *J&S.*

Burpee's Cuban Queen, Burpee's Delaware, Burpee's Halbert Honey, Burpee's Hungarian Honey, Burpee's Mammoth Ironclad, Burpee's White Gem. Entered as *Cuban Queen, Delaware, Halbert Honey, Hungarian Honey, Mammoth Ironclad,* and *White Gem.*

California. W&D.

Similar names. California Jumbo, California Lodi, Early California.

Seedsmen's synonyms. *Improved Odella,* W&D.

California Jumbo. Vin. For similar names see *Jumbo, California.*

California Lodi. Vin. For similar names see *Lodi, California.*

Carolina Bradford. Alx *Man Wlt* Wd. For similar names see *Bradford.*

Childs' Ruby Gold. Entered as *Ruby Gold.*

Chilean. J&M.

Similar names. Mammoth Chilean.

Christmas. Bel Bgg Cox Cur GH Kos May Shm.

Similar names. See *Johnson Christmas.*

Citron. Alr Bai Brd Btl Bow Brk Bdg Bru Brb Brr CE C&B CF Cur Dlw Del DD Dun Eas Elt Emr RE Ewg Fqr Fer Fle Ger Gls Gra G&T Grw Hns Hrm Hrs Hrv Haw Hen Hop Hse Iow MWJ RHJ Jns *Kei* K&W Ken *Kg* Kos LB Loh Mas JCM McK Mhl Mls MV Mzy Nol NI NK Pg HP Prn Pnt Ptt Poo Por Pot Pri Rtk Raw Ren Rce Roc Rs RP Sal SC S&F Shw S&O Shm *Sox* SB Stw S&H S&W Thr Til Tpk Trm Vk Wea Web W&D Wll Wd Wdr WS.

Similar names. Citron Green-Seeded, Citron Red-Seeded, Green-Citron, Preserving Citron, Green Preserving Citron, French Preserving Citron, Colorado Citron, Colorado Preserving Citron, Colorado Mammoth Citron, Colorado Pie Citron, Shumway's Japanese Pie Citron, Wonderful Japanese Pie Citron.

Citron Green-Seeded. GH Rob. For similar names see *Citron.*

Citron Red-Seeded. Brt Bkt Cle D&H GH TG Iow Kg Lnr Pug Rob S&R Tat Vau.

Similar names. See *Citron.*

City of Mexico. Sal.

Cole's Early. Brd Brt Btl Bkt *Bel* Ber *Bgg* Bdg Bgs Bri Bue Bur CE Cle Col CF Cox Crs Cur Del Drr Eas Elt RE *Evr Fqr* Fld Frd GH Gra Ggy TG *Hrn* Hen Iow Jer J&S Jns *Kei* Kg Kra Lnr Liv JL Man Mau May MV Neb Nol NK OV Old Ptt Por Pot Pri Qkr Rtk Ren Rce Rob Roc RP S&R S&O Shm Sie Sim *Sox* Spf SB S&H S&W Thr *Thb Tpk* Trm Vau Vk Web Wer Yng.

Similar names. Cole's Extra Early.

Cole's Extra Early. Pnt. For similar names see *Cole's Early.*

Colorado Citron. Bow D&H Fqr Gra H&P RHJ Kra Tat Thr Vau Vin Yng.

Similar names. See *Citron.*

Seedsmen's synonyms. *Apple Pie,* Fqr Bow Thr. *Colorado Preserving,* SC.

Colorado Mammoth Citron. RE SB. For similar names see *Citron.*

Colorado Pie Citron. Ger. For similar names see *Citron.*

Seedsmen's synonyms. *Melon Pumpkin,* Ger.

Colorado Preserving Citron. Bkt *Bri* Bru Bur *CE* Col CF Cox Cur Drr Evr Fmr Fst Gry TG Hlm Hse Iow Jer J&S Kg Liv Man PM May Mau JMM McK Neb Nef Ptt Pri Raw Ren Rce Roc SC S&F Tem Tex Til Vl *Wat* Wer Wll.

Similar names. See *Citron.*

Seedsmen's synonyms. *Apple Pie,* S&F. *Colorado Citron,* SC.

Columbia. Alr.

Seedsmen's synonyms. *Dixie,* Alr.

Cuban Queen. Alr Anb Ar Bai Bak Brd Brt Btl Bkt Ber Blg Bow Bgg Brk Brn Bru Bui Bur Brr C&J CE Chl Cle Col CF Cox Crg Crs Cur Dlw Del DD D&C Drr Ebe Elt Emr RE Ewg Fmr Fqr Fst Fer Frd Ger GH Gra Gry Grw TG Hde Hrn Hrs Hst Hen Hlm Hnt H&P Iow J&M J&S *Kei Kg* Kos Lam Lan Lea Lnr LB Liv JL Loh Mgd Man PM Mns Mau May JCM JMM Mic Mhl Mls Min MV M&S Mzy Neb Nef NI OV Pac Pg JMP Pir Prn Pnt Ptt Poo Por Pot Raw Ree Ren Rce Rob Rs RP S&R SC S&F Shw S&O Shm Sim Sox Spf SB Tat Tex Thm Thr Tpk Trm T&B Vl Vau Vk Vin Wea Web W&D Wer Wll Wyg Yng.

Similar names. Burpee's Cuban Queen, American Queen, Market Queen, Gypsy Queen, Georgia Queen, Everitt's White Queen, White Queen.

Dallas Market. Hde Tex.

Dark Green Icing. Lan Stw TB. For similar names see *Dark Icing.*

Dark Icing. Ar Bai Brd Bkt Ber Bow Bgs Brn Bui Bur C&J CE Cle C&B CF Crs Cur Drr Evr Fer Frd Ger Gdn GH Ggy Grw TG Hlm Iml Jac MWJ J&M J&S Jns *Kg* Kra Lam Lnr Liv JL Loh Mnd Mgd PM Mau May JCM JMM Mhl Min MV

Nol NI NK Pac Pir Pnt Pug Rce Rob RP S&R SC Sie Sox Spf Tat Thm Thr Tpk Trm Vau Wea Web Wd Y&H.

Similar names. Archias' Improved Dark Icing, Dark Green Icing, Round Dark Icing, Green Icing.

Seedsmen's synonyms. *Green Mountain*, Ber. *Ice Rind*, Bur Bkt Bow Ger PM Sie, etc. *Peerless*, MWJ.

Delaware. Alr Bur Col Del D&C Frd GH Hst Hlm J&S Lnr Rce Rob Roc Shm Tem.

Dixie. Alr Anb Bai Bak Brd Btl Bel Ber Blg Bow Bgs Bru Bng Buc Bui Bur Brr Brw CE Chl Cle C&B Col CF Cox Crg Crs Cur Del DD Drr Drm Ebr Eic Elt RE Evr Fmr Fer Frd Ger Gls Gdn GH Gng Ggy G&T Grw Hns Hde Hrn Hen Hbt H&C *Hly* Hlm Hop Hse H&P Iow Jac MWJ Jns Kg Kos Kra Lam Lan Lnr LB Liv JL Loh Mgd Man Mau May JCM JMM Mic Mhl Mls MV M&S Neb Nol OV Old Pac Pg JMP Pir Prn Ptt Qkr Raw Ree Rce Rim Rob Roc RP Sal Shw S&O Shm Sox SB Stw S&H Tat Tem TB Thr *Tpk* Trm T&B Vau Vk Vin *Wat* Web W&D Wd WS Wyg Yng.

Similar names. Improved Dixie, Long Dixie, Improved Long Dixie, Johnson's Dixie, White Dixie.

Seedsmen's synonyms. *Columbia*, Alr.

Duke Jones. Alx Alr Anb Ar Brd Btl Bkt *Blg* Buc Bui Bur *Cam* CE Chl Cle Cox D&H Drm Ebr Eic Gdn GH Ggy Gfg G&T Hns Hde Hrn Hst Hbt H&C Iml Iow MWJ J&M J&S Kg Lan *Lnr* Mgd Man PM May JMM Mic MV M&S Nol NK Pac JMP Rce Rob Roc RP Sal Shw S&O Shm Sox Spf Stk S&H Tat Tem Tex TB Thm Thr Tpk Wll Wd WS.

Similar names. See *Jones.*

Seedsmen's synonyms. *Jones' Jumbo*, Alx. *Jumbo*, Alr.

Earliest. Koe.

Similar names. Mills' Earliest, Salzer's Earliest.

Early California. Drm TG. For similar names see *California.*

Early Canada. Ren.

Early Corona. J&S.

Early Dark Icing. *Stk.*

Early Market. MWJ.

Similar names. Arrington's Early Market.

Early Mountain Sprout. Emr. For similar names see *Mountain Sweet.*

Early Mountain Sweet. Bdg Hrs. For similar names see *Mountain Sweet.*

Early Peerless. Cok Shw. For similar names see *Peerless.*

Early Triumph. Pg Stk. For similar names see *Triumph.*

Eden. Alx Wlt Wd.

Egyptian Red. Sal.

Eichling's Alabama Sweets. Entered as *Alabama Sweets.*

Empire State. *Hst.*

Everbearing. Buc.

Everitt's White Queen. Entered as *White Queen.*

Excelsior. Tpk.

Similar names. Haskill's Excelsior.

Expansion. *Sal.*

Extra Early. Dlw Koe Lan *Pac* Stw T&B.

Similar names. Extra Early Sugar, Harris' Early, Briggs' Early.

Extra Early Sugar. Cok. For similar names see *Extra Early.*

Favorite. Mls Tat. For similar names see *Florida Favorite.*

Ferry's Peerless, Ferry's Sweet Heart, Ferry Iceberg. Entered as *Peerless, Sweet Heart,* and *Iceberg.*

Florida Favorite. Alx Alr Bai Bak Btl Bkt Blg Bou Bow *Bgg* Bri Brn Bui Bur Cam *CE* C&B CF Cox Crg Crs CA DD Drr Drm Ebr Eic Elt Evr Ewg Fst Fer Fld Frd Ger Gls Gdn GH Ggy Gfg G&T Grw TG Hns Hde Hrn Hst Hen *H&C* Hlm H&P J&M J&S Kg Kra Lan Lnr *LB* Liv Mgd PM Mns Mau May JCM JMM MV M&S Neb Nol Pac Pir Pnt Ree Rce Rob Roc RP Sal SC Shw S&O Shm Sox Spf Stk Stw S&H *S&W* Tat Tex Thm Thr Trm T&B Vl Vau Vk Vin Web W&D Wd WS Yng.

Similar names. Improved Florida Favorite, Favorite, Girardeau's Favorite.

Seedsmen's synonyms. *Pierson*, CA.

Florida Gem. M&S. For similar names see *Kolb's Gem*.

Florida Ivy. Cam. For similar names see *Ivy*.

Fordhook. Shw. For similar names see *Foordhook Early*.

Fordhook Early. Ar Bkt Ber Buc Bur Col CF Cox Del Fqr Fld Frd *GN* Gfg G&T Hrs Hbt *H&C* Hlm Hse Iml Iow J&M J&S Kg Koe Lam *Lnr* Liv JL Mau *May* Mls *MV* Neb NK Pg HP Pnt Qkr Ree Rce Rob Roc S&B S&O Shm *Sox SB* S&H Trm Vau Vk Web Y&H.

Similar names. Fordhook.

Frame's Mammoth Santiago. Entered as *Santiago*.

French Preserving Citron. M&S. For similar names see *Citron*.

Frontenac. J&S.

Gem. Hnt Lan Stw. For similar names see *Kolb's Gem*.

Georgia. Lan.

Similar names. Georgia Blues, Pride of Georgia, Georgia Rattlesnake.

Georgia Blues. CA. For similar names see *Georgia*.

Seedsmen's synonyms. *Blue Gem*, CA.

Georgia Queen. Hrn. For similar names see *Cuban Queen*.

Georgia Rattlesnake. Alx Alr Ar Bak Brd Brn Cam CE Cle C&B CCo Crg Crs Cur Eic Evr Fst Fer Ger Gdn GH *Ham* Hde Hrn Hst H&C Hlm Iml Iow J&M J&S Kg Lam Lnr LB Liv JL Loh Mgd Man Mau May JCM Mic MV M&S Neb NI OV Pac Pir Prn Por Qkr Ree Rce Rob Roc RP S&R Shw S&O Shm Sox Spf S&H Tex TB *Tpk* Trm T&B Vl Vk Vin Web Wd WS Wyg.

Similar names. See *Rattlesnake, Georgia*.

Seedsmen's synonyms. *Gypsy*, Cur Fer Iow Lam Liv Ree, etc. *Improved Gypsy*, Prn. *Striped Gypsy*, Bur Eic H&C Mau M&S PM Qkr.

Giant Sweet. Sal.

Similar names. Salzer's Giant Sweet.

Girardeau's Favorite. Buc Bur Cle Crs Del Gfg TG MWJ *Lnr* PM Pac Roc Vin Wd WS.

Similar names. See *Florida Favorite*.

Girardeau's Triumph. Entered as *Triumph*.

Glory of Asia. Sal.

Similar names. Salzer's Glory of Asia.

Gloussier. Hst Wlt.

Seedsmen's synonyms. *Blue Gem*, Wlt.

Golden Honey. Btl Bgs Cok D&H GH Hns Shw.

Similar names. See *Hungarian Honey*.

Golden Rind. Alx Sal.

Similar names. Salzer's Golden Rind.

Golden Sugar. Kg.

Goodwin Imperial. Shm Thr.

Gragg. Ggy.

Gray Monarch. Alx Ar Bai Bak Btl Blg Bow Bdg Bgs Bui Bur C&J *CE* Cle C&B CF Cox Crg Crs DD *Drr* Drm Ebr Elt Frd Gdn GH *Gfg* G&T Hde Hst Hen Hlm

H&P Jac J&S Kg Lan Liv Mgd Mau May JMM MV M&S Pac Pnt Ptt Por Rce Rob Roc S&R Shw S&O Shm Sox Spf S&W Tat Tex *Thm* Thr *Trm* Vk Web W&D Wd.

Similar names. Jordan's Gray Monarch, Mammoth Gray Monarch, Monarch.

Seedsmen's synonyms. *Light Icing,* Spf Roc. *Long White Icing,* Ar Blg C&J G&T J&S Mau, etc. *Mammoth White Icing,* Bak Buc. *Light Icing,* Bow Por S&R. *Long Light Icing,* MV Wd.

Great and Good. Kg.

Similar names. King's Great and Good.

Green and Gold. Alr Bai Bkt Bel *Bgg* Brk Bdg Bru Buc Bur *CE* Col Cox Crs DD Ebe Elt Evr Fst Ger GH Gra Gry Grw TG Hse H&P Iow Kg Kos Liv *Man* May Pac Prn Pri Ren Rce Roc RP Sal Shm Tat T&B Vl Vin *Wea* W&D.

Similar names. Henderson's Green and Gold.

Green Citron. *Bow* Bri C&J Ebe Hde Hrs J&S. For similar names see *Citron.*

Green Icing. Ber. For similar names see *Dark Icing.*

Green Mountain. Ber.

Seedsmen's synonyms. *Dark Icing,* Ber.

Green Preserving Citron. Pac Y&H. For similar names see *Citron.*

Grist. Shw.

Gypsy. Alr Anb Bak Btl Bow CE C&B Cox Cur DD Ebr Elt Evr Fst Fer Ger GH Grw Hrn Hrv *Hly* Iml Iow J&S K&F Lam Lan Lnr LB Liv Loh Mgd JCM Min Prn Pnt Ree Roc RP Sal S&H Thm Tpk Vin Web W&D Wyg.

Similar names. Striped Gypsy, Long Striped Gypsy, Round Striped Gypsy.

Seedsmen's synonyms. *Georgia Rattlesnake,* Cur Evr Fer J&S Lam Liv, etc. *Jackson,* Lan. *Rattlesnake,* Anb Btl Ebr Elt Lan W&D, etc. *Southern Rattlesnake,* Bow Cox Grw K&F Pnt.

Gypsy Queen. Wat Yng. For similar names see *Cuban Queen.*

Seedsmen's synonyms. *Rattlesnake,* Yng.

Halbert Honey. *Bur.*

Halbert's Prize. Shw.

Hammond's Pickaninny's Delight. Entered as *Pickaninny's Delight.*

Harris' Earliest. Mau Mls. For similar names see *Extra Early.*

Haskill's Excelsior. Entered as *Excelsior.*

Hastings' Florida Favorite. Entered as *Florida Favorite.*

Hastings' Tinker. Hst.

Hendersons' Green and Gold. Entered as *Green and Gold.*

Honey. *Ggy.*

Hoosier King. Alr Brd Buc Cle Del Drr Drm Evr Frd H&C H&P Kg *Lnr* Liv Man J&M Rob Roc RP Shm *Spf* Vl Yng.

Similar names. Market King, Ice King, May's Ice King.

Hungarian Honey. Brd Btl Bel Ber Bgg Bdg Bri Bru Buc Bur Brr Chl Cle Col CF Cox Crs Cur Emr RE Fqr Frd Ger Gls GH *Gra* Grw Hrs Hst Hbt Hse H&P *Jns Lnr* Mnd *Man* May MV Pac HP Pir Ptt Por Pri Raw Ree *Ren* Rce Rob Roc Sal S&R S&F Shm Sie Sox SB S&W Tem Thr *Tlh* Trm T&B Vau Vk W&D Wdr Y&H.

Similar names. Burpee's Hungarian Honey, Golden Honey.

Iceberg. *Fer.*

Ice Cream. Anb Bai Brd Btl Bkt Bel Bow *Bgg* Brk Bgs Bri Buc Bui Bur C&J C Cle C&B Col CF Cox Crs DD Drr Ebe Eic Elt Emr Evr Ewg Fmr Fqr Fst F Frd Ger Gls Gdn Gra GN Gry Grw TG Hns Hde Hrn Hrs Hrv Hst Hen Hlm Hnt H&P Iml Iow Jac RHJ J&M J&S *Kei* Ken Kg Kra *Lam* Lea Lnr LB Liv JL Lon Mnd Mgd Man PM May JCM JMM Min Mzy Neb Nol NK OV Old Pac Pir Pnt Ptt Por Pot Pri Qkr *Rtk* Raw Ree Ren Rce Rob Roc Sal S&R SC S&F S&B

S&O Shm Sox Spf Stk S&H *S&W* Tat Tex Thr Til Tpk Trm T&B Vl Vau Vk Vin Wea Web W&D Wll Wd Wdr Wyg Yng.

Similar names. Ice Rind, Buckbee's Ice Cream, Improved Ice Cream, Peerless Ice Cream.

Seedsmen's synonyms. *Peerless*, Buc Brk Btl Bow Bur Vk, etc. *Ferry's Peerless*, Ggy. *Mountain Sweet*, Bai Pri Vin. *Icing*, Bdg Ebe. *Ice Rind*, Bdg. *Strawberry*, Bdg.

Ice King. Ber May OV. For similar names see *Hoosier King.*

Ice Rind. Ar Btl Bkt Bow Bdg Bui Bur Brw CE CF Fst Frd Ger Hns Iml J&S Lnr JMM Mhl M&S Pac Pir Rce S&O Sie Tat.

Similar names. See *Ice Cream.*

Seedsmen's synonyms. *Dark Icing*, Bkt Bow Bur Frd Ger PM, etc. *Ice Cream*, Bdg. *Icing*, Ar Btl Fst Hns Pir Rce, etc. *Light Icing*, Bui Brw J&S Mhl M&S Pac, etc. *Round Light Icing*, CE. *Strawberry*, Bdg.

Icing. Btl Bdg Ebe Fst Hns Pir Rce S&O Shm.

Similar names. See *Round Light Icing.*

Seedsmen's synonyms. *Ice Cream*, Bdg Ebe. *Ice Rind*, Ar Btl Bdg Fst Pir *Ice Rind Dark-Skinned*, Hns Rce. *Ice Rind Light-Skinned*, Hns Rce. *Strawberry*, Bdg.

Immense. *Kg.*

Improved Dixie, Improved Florida Favorite, Improved Georgia Rattlesnake, Improved Ice Cream, Improved Gypsy, Improved Ironclad, Improved Jones, Improved Kolb's Gem, Improved Long Dixie, Improved Mountain Sprout, Improved Mountain Sweet, Improved Odella, Improved Phinney, Improved Phinney's Early. Entered as *Dixie, Florida Favorite, Georgia Rattlesnake, Ice Cream*, etc.

Indiana Sweet Heart. *Cam* Evr Haw H&P Kg Lan Mic Stw Vl.

Similar names. See *Sweet Heart.*

Ironclad. C&J CF Crg *Drr* Gdn GH Hns MWJ JMM *Mhl* Sal Shm Tpk Wyg.

Similar names. Improved Ironclad, Burpee's Mammoth Ironclad, Mammoth Ironclad.

Ivy. Bou *Cam* CA.

Similar names. Florida Ivy.

Jackson. Kg Lan Wd WS.

Seedsmen's synonyms. *Gypsy*, Lan. *Rattlesnake*, Bdg Lan. *Striped Gypsy*, Bdg.

James River. Lan.

Japanese Pie Citron. Shm. For similar names see *Citron.*

Joe Johnson. Kg Wd. For similar names see *Johnson Christmas.*

Johnson Christmas. DD Roc Sal Wdr.

Similar names. Christmas, Salzer's Johnson Christmas, Joe Johnson.

Johnson's Dixie. TG J&S Tex. For similar names see *Dixie.*

Jones. Bur C&J Cam Crs Frd Hst Hen Hse Jac MWJ Liv PM Mns Mau Neb Rce SC *Shw* S&O Spf Tat Vk Wlt Wd WS.

Similar names. Jones' Jumbo, Primus Jones, Duke Jones.

Seedsmen's synonyms. *Lord Bacon*, MWJ. *Jumbo*, Crs Frd S&O. *Prize Jumbo*, Frd.

Jones' Jumbo, Jones' Pride of Georgia. Entered as *Jumbo* and *Pride of Georgia.*

Jordan. Rce.

Similar names. Jordan's Gray Monarch.

Jordan's Gray Monarch. Entered as *Gray Monarch.*

Jumbo. Alr Ar Bak Btl Buc Cle Crs CA Del DD Drm Ebr Frd Gdn GH Hde Hlm Hse H&P Jac MWJ J&S Kg Lnr Liv May MV M&S Nol Old Pnt Rce Rob Roc RP SC Shw S&O Shm *Sox Spf* Tat Tex Trm Vau Web Wyg Yng.

Similar names. Prize Jumbo, California Jumbo, Jones' Jumbo.

Seedsmen's synonyms. *Duke Jones*, Alx Alr. *Jones*, Crs Frd S&O. *Prize Jumbo*, Frd.

Kansas Stock. Btl Hns Pir *Trm.*

Similar names. Nebraska Stock.

Kentucky Wonder. Anb Ar Btl Bgg *Bur* CE Crg Del Emr Fmr *Fld* Ger GH Grw Hns *H&C* J&S J&M Kg Kra Lnr LB PM JMM MV Neb Nol NI NK Pac Por Raw Rce Rob Roc RP Sal S&R Shw S&O Shm Sox Spf Tex Til Trm Vl Web *WS.*

King's Great and Good, King's Immense. Entered as *Great and Good* and *Immense.*

Kleckley Sweets. Alx Alr Brd *Btl Ber* Buc Bui Bur *Brw C&J* Chl *CF* Cox Drr Eic *Fmr* Fld Frd Gdn Gra *G&T* TG *Hde* Hst *H&C* Hlm Iml *MWJ* J&S *J&M* Kg Kra Lnr Mgd Mau May JMM MV M&S *Nol* NK Old Pir Pnt Qkr Ree Rob Roc *RP* Shw S&O Shm Sie *Sox* S&H *Tat TB Thm* Thr *Tlh* Trm *Vl* Vau Vk *Wat* WS Yng.

Similar names. Arrington's Sweets.

Seedsmen's synonyms. *Monte Cristo,* Iow Pnt.

Klondike. Fmr LB NK.

Kolb's Gem. Alx Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Blg Bou Bow Bgg Brk Bdg Bgs Bri Brn Bru Buc Bui Bur Brr CE Cle C&B Col CF Cox Crg Crs Cur CA Dlw Del DD Drr Drm Ebe Ebr Eic Elt Emr RE Evr Fmr Fst Fer Frd Ger Gls Gdn GH GN Ggy Gry Gfg G&T Grw TG Hns Ham Hrn Hrs Hrv Hst Hen H&C Hly Hlm Hop H&P Iml Iow Jac MWJ RHJ J&M J&S Jns Kg Kos Kra Lam Lea Lnr LB Liv JL Loh Mgd Man PM Mns Mau May JCM JMM Mic Mhl Mls Min MV M&S Mzy Neb Nol NI NK OV Old Pac Pks JMP Pir Prn Pnt Ptt Por Pot Pri Rtk Raw Ree Ren Rce Rob Roc Rs RP Sal S&R SC S&B Shw S&O Shm Sox Spf Stk S&H S&W Tat Tem Tex TB Thm Thr Tpk Trm T&B Vl Vau Vk Vin Wat Wea Web W&D Wer Wlt Wd Wdr WS Wyg.

Similar names. Perfected Kolb Gem, Buckbee's Perfected Kolb's Gem, Improved Kolb's Gem, Gem, Blue Gem, Florida Gem, White Gem, Burpee's White Gem.

Seedsmen's synonyms. *American Champion,* Ber Bru Bur Frd Hlm Raw.

Lagonda. Hst.

Landreth's Boss, Landreth's Long Light Icing. Entered as *Boss* and *Long Light Icing.*

Light Icing. Ar Brd Ber *Blg* Bow Bui Brw CE CF Cox Evr Gdn GH Grw TG Jac J&M J&S Jns Kg Lnr May JCM Mhl Min MV M&S Pac Por Rtk Rce Rob RP S&R SC Sox Spf TB Thm Thr Trm.

Similar names. See *Round Light Icing.*

Seedsmen's synonyms. *Gray Monarch,* Roc Spf. *Ice Rind,* Brw Bui J&S Mhl M&S Pac. *Jordan's Gray Monarch,* Bow Por S&R. *Monarch,* Grw.

Livingston's Nabob. Entered as *Nabob.*

Lodi. Bai Bow Ger J&M Pac.

Similar names. California Lodi. White Lodi.

Seedsmen's synonyms. *San Joaquin,* Bow.

Lone Star. Eic Stk Tat Tex.

Long Dixie. Ar Hst Lan HP Pnt SC Sim Spf Thm.

Similar names. See *Dixie.*

Long Icing. Roc. For similar names see *Long Light Icing.*

Long Island. Ewg Gra TG *Kei* Tpk.

Long Light Icing. Alx *CE* Cle *Drr* Fer Ger H&C Lam Lan *Lnr* Loh MV Rce *Rim* TB Wea.

Similar names. Landreth's Long Light Icing, Long White Icing, Long Icing.

Seedsmen's synonyms. *Gray Monarch,* MV. *Jordan's Gray Monarch,* Wd.

Long Striped Gypsy. Shm. For similar names see *Gypsy.*

Long White Icing. Ar Blg *Bow* Bui Bur C&J J&S Kra Mau JMM Shm Vau Vk *Wat.*

Similar names. See *Long Light Icing.*

Seedsmen's synonyms. *Early Monarch,* Fer Lam. *Gray Monarch,* Ar Blg C&J G&T J&S Mau. *Jordan's Gray Monarch,* Bui Bur Frd M&S Vk.

Lord Bacon. MWJ McM.

Seedsmen's synonyms. *Improved Jones*, MWJ.

Lord Baltimore. G&T.

Louisiana Melting Sugar. M&S. For similar names see *McIver's Sugar.*

McIver's Sugar. Bkt Bur Col Cox D&H Drr G&T *MWJ* Kg Mic MV Pg Qkr Ren Sox *SB Thm* Web Yng.

Similar names. McIver's Wonderful Sugar, Will's Sugar, Louisiana Melting Sugar, Wonderful Sugar, Maule's Wonderful Sugar, Wonderful.

Seedsmen's synonyms. *Wonderful*, Drr. *Wonderful Sugar*, Rob S&H.

McIver's Wonderful Sugar. Alr Ber Cle Evr Fld Frd TG Ham Hrn Hst Hlm Iow J&S *Kg* Kra Lnr Liv JL Mgd M&S Neb Pnt Shw Shm Sim Sox *Stk* S&H *Tlh* Vau Vk *WS.*

Similar names. See *McIver's Sugar.*

Majestic. *M&S.*

Mammoth Chilean. Thm. For similar names see *Chilean.*

Mammoth Gray Monarch. Alr Col TG. For similar names see *Gray Monarch.*

Mammoth Ironclad. Alr Anb Bai Brd Btl Bow Bgg Brk Bdg Brn Bng Bui Bur *Cam CE* Chl Cle C&B Col Cox Crs Cur DD D&C Eic Elt Emr Fqr Fst Frd Gry Grw Hrn Hrs Hst Hen Hlm J&M J&S *Kg* Lnr Liv JL Man Mau May JCM Mls MV Mzy Neb Nol Pac Pg Prn Pri Qkr Raw Ree Ren Rce Rob Roc Rs RP S&F Shw S&O Sox Stk S&W Tat Tem Thr Til Trm T&B Vl Vk Vin Wat Wea Web W&D Wer Wdr WS Yng.

Similar names. See *Ironclad.*

Mammoth Santiago. Bur *J&S* Shw. For similar names see *Santiago.*

Mammoth White Icing. Bak. For similar names see *Round Light Icing.*

Seedsmen's synonyms. *Gray Monarch*, Bak Buc.

Market King. M&S. For similar names see *Hoosier King.*

Market Queen. M&S. For similar names see *Cuban Queen.*

Maule's Wonderful Sugar. Entered as *Wonderful Sugar.*

May's Ice King, May's Ice Cream. Entered as *Ice King* and *Ice Cream.*

Melon Peach. NK Vau.

Similar names. Vine Peach.

Memphis. Hen Shm.

Mills' Earliest. Mls. For similar names see *Earliest.*

Miracle. *Tlh.*

Monarch. Grw. For similar names see *Gray Monarch.*

Seedsmen's synonyms. *Light Icing*, Grw.

Monte Cristo. Buc *CE* Cok Ebr Fer *Fld* Gdn *H&C* Iow Jns *Kg* Lnr Mic *Old* Rce Roc Shw Shm *TB.*

Seedsmen's synonyms. *Kleckley Sweets*, Iow Pnt.

Moore's Majestic. Entered as *Majestic.*

Mountain Sprout. Anb Btl Brn Brr C&J CE Cle Cox Crs Ewg Fst GH Gra TG Hrv *Kei* Lea Mau May Min NI Rce Rob Roe Shw Shm Sox Tex Thm Tpk Trm Vin W&D Wer.

Similar names. See *Mountain Sweet.*

Mountain Sweet. Alr Anb Ar Bai Bak Brd Brt Btl Bkt Bel Ber Bow Bgg Brk Brn Bui Brb Bur Brr Brw C&J CE Chl Cle C&B Col CF Cox Crg Crs Cur Dlw D&H Del Drr Dun Ebe Ebr Elt Emr RE Ewg Fmr Fqr Fer *Fld* Gls GH Gra Gry Grw TG Hns Hde Hrm Hrn Hrv Hst Haw Hen *H&C* Hlm Hop Hse Hnt H&P Iml Iow RHJ J&M J&S Jns *Kei* K&W Ken Kg Koe Kos Kra *Lam* Lea Lnr LB Liv JL Mnd Mgd Mas Mau May JCM JMM *Mel* Mhl Min MV M&S Mzy Nef Nol Pac Pg Pir Prn Pne Pnt Ptt Por Pot Pri Raw Ren Rce Rob Roc Rs RP Sal S&R

S&F Shw S&O Shm Sim Sox Spf SB S&H *S&W* Tat Tem Tex Thm Thr Thb Til Tpk Trm Vau Vk Vin *Wea* Web W&D Wer Wll Wd Wdr Wyg Yng *Y&H.*

Similar names. Improved Mountain Sweet, Early Mountain Sweet, Mountain Sprout, Improved Mountain Sprout, Early Mountain Sprout.

Seedsmen's synonyms. *Ice Cream*, Bai Pri Vin.

Muskile. Tat.

Nabob. Anb Buc Bur D&H Drr Drm Frd Hlm *Lnr* Liv JL Rob Roc Shw Sim Tem Vk.

Similar names. Livingston's Nabob.

National. Mau.

Nebraska Stock. Neb. For similar names see *Kansas Stock.*

New Century. *Tlh.*

Nigger Head. Tat.

Odella. TG Sal W&D.

Similar names. Improved Odella.

Seedsmen's synonyms. *California*, W&D.

Oh My. Sal.

Orange. Btl *Bgg* Bdg C&J *CE* Crs Fst Frd Ger Hns H&P Iow Min Ren Rce SC Shw Shm Tat Tpk.

Paule's Bonny Best. J&S.

Peerless. Anb Ar Brd Btl Bel Bow *Bgg* Bgs Brn Bru Buc Bur Brw C&J CE Cle Col Cox Crg Crs Cur Del DD Ebr Eic RE Evr Ewg Fmr Fer Frd Ger Gls Gdn GH Gra GN *Ggy* Grw TG Hde Hrn Hst H&P Iml Iow MWJ RHJ J&M J&S Jns Ken Kg Koe Lam Lan Lea Lnr LB Liv JL Loh Mau JCM JMM Mic MV Neb NK OV *Pac* Pg Pks Pnt Ptt Por *Rtk* Ren Rce Rob Roc Sal S&R SC S&O Shm Sox Spf SB Tex TB *Tpk* Trm Vl Vk Web Wll Wd Wdr *WS* Wyg Yng Y&H.

Similar names. Early Peerless, Ferry's Peerless, Peerless Ice Cream.

Seedsmen's synonyms. *Ice Cream*, Brd Btl Bow Bur J&S Vk, etc. *Buckbee's Ice Cream*, Buc. *Dark Icing*, MWJ.

Peerless Ice Cream. Haw. For similar names see *Ice Cream.*

Perfected Kolb's Gem. Entered as *Kolb's Gem.*

Perfection. Pg.

Phinney. Chl Kei *Kg* Kra Ren Sim Thr Vau Vin.

Phinney's Early. Alr Anb Ar Bai Brd Brt Btl Ber Bow Bgg Brk Bdg Brn Bru Bng Bui Brb Bur Brr C&J CE Cle Col CF Cox Crs Cur Del Eas Ebe Ebr Emr RE Evr Ewg Fqr Fst Fax Fer Frd Ger GH Gra Gng Gry Grw TG Hde Hrm Hrn Hrv Haw H&C Hlm H&P Iow J&M Jns K&W Lam Lea Lnr LB Liv Loh Mgd PM Mau May JCM JMM Mic MV Mzy Neb NK OV Pac Pks Prn Pnt Ptt Por Pot Pri Raw Rce Rob Rt Rs Sal S&R SC S&F Shw S&O Sox Spf SB S&H *TB* Thm Thb AGT *Tlh* Til Tpk Trm T&B Vl Vk *Wea* Web W&D Wll Wdr Wyg Y&H.

Similar names. Improved Early Phinney, Phinney's Extra Early, Phinney's Early Oval, Phinney's Improved, Phinney.

Phinney's Early Oval. Mas. For similar names see *Phinney's Early*

Phinney's Extra Early. Anb Buc JL Roc Shm.

Similar names. See *Phinney's Early.*

Pickaninny's Delight. Ham.

Similar names. Hammond's Pickaninny's Delight.

Pierson. CA.

Seedsmen's synonyms. *Florida Favorite*, CA.

Premium Triumph. Bui. For similar names see *Triumph.*

Preserving Citron. *Bgg* Brn Fmr Lan Lnr Liv JL Pir.

Similar names. See *Citron.*

Pride of Alabama. Cam. For similar names see *Eichling's Alabama Sweet.*

Pride of Georgia. Alx Bai Brd Btl Bkt Ber *Bgg* Bui Bur *CE* Cle C&B Cox Crs CA DD Ebr Eic Elt Emr Fst Frd GH Ggy Grw Hns Hde Hrn Hst *Hly* Hlm H&P Iow *MWJ* J&M J&S Lea Lnr Liv JL Man PM Mau May JCM JMM Mhl MV Mzy Neb Pac Ptt Rce Rob Roc RP Sal *Shw* S&O Sox Spf Stk *S&W* Tat Tex Thm Thr Trm T&B *Vl* Vk W&D Wlt Wd WS.

Primus Jones. MWJ. For similar names see *Jones.*

Prize Jumbo. Vk. For similar names see *Jumbo.*

Seedsmen's synonyms. *Jones*, Frd. *Jumbo*, Frd.

Rattlesnake. And Btl CF Dlw DD Drr Ebr *Eic* Elt *Evr Fld* Gfg G&T Hlm H&P *MWJ* Lan Lea JMM Mhl Min Mzy Shw Stk Stw Tat Thm Tpk Vau W&D Wer Yng.

Seedsmen's synonyms. *Gypsy*, Anb Btl Ebr Elt Lan W&D, etc. *Gypsy Queen*, Yng. *Jackson*, Bdg Lan. *Striped Gypsy*, Bdg Drr Hlm Mhl.

Rocky Ford. Btl Hns Pir Trm.

Similar names. Rocky Ford Long Green.

Rocky Ford Long Green. Sal. For similar names see *Rocky Ford.*

Round Black Spanish. Rce. For similar names see *Black Spanish.*

Round Dark Icing. H&C *Wat.* For similar names see *Dark Icing.*

Round Light Icing. Brn Fer H&C Hlm Iml *Lam Lnr* LB.

Similar names. Round White Icing, Mammoth White Icing, Light Icing, Icing.

Seedsmen's synonyms. *Ice Rind*, CE.

Round Striped Gypsy. *CE* Rce Rob. For similar names see *Gypsy.*

Round White Icing. Roc. For similar names see *Round Light Icing.*

Ruby Gold. Alr Bai Btl Bel *Bgg* Bri Bng Buc Bur *CE* Chl Del Elt RE Fmr Frd GH Hns Liv *Man* PM Mzy Rce Roc Shm W&D.

Similar names. Childs' Ruby Gold.

Safeguard. May.

Salzer's Earliest. Sal. For similar names see *Earliest.*

Salzer's Giant Sweet, Salzer's Glory of Asia, Salzer's Golden Rind, Salzer's Expansion, Salzer's Johnson Christmas. Entered as *Giant Sweet, Glory of Asia, Golden Rind, Expansion* and *Johnson Christmas.*

San Joaquin. Bai Bow.

Seedsmen's synonyms. *Lodi*, Bow.

Santiago. TG Pg.

Similar names. Mammoth Santiago, Frame's Mammoth Santiago.

Scaly Bark. Bel *Bgg* Bdg *CE* Cle C&B Cox Cur DD Ebe Fst GH Hrm J&S K&W Lnr May Mhl Mzy Nef *Pac* Rce Rob Roc RP Sal SC S&O Shm Sox Spf Tat Tpk T&B W&D.

Seminole. Alx Alr Anb Brd Btl Bkt *Bow Bgg* Bri Buc Bui Bur Brw C&J Cam CE Cle CF Cok Crg Crs Del DD Drr Ebe Ebr Eic Evr Fst Frd Ger Gdn GH *Gra* Ggy Gfg Grw TG Hde Hrn Hen Hop H&P Jac Jer MWJ J&M J&S K&F Kg Kra Lan Lnr Liv JL Mgd PM May Mau JCM MV Mzy Neb Old Pac Pnt Ptt Pri Ren Rce Rob Roc RP Sal *Shw* S&O Shm Sie Sim Sox Spf Stk SB Stw Tat Tem Tex *TB Thm* Thr Trm T&B Vau Vk Vin Web W&D Wdr Wyg Y&H.

Similar names. Seminole Early, Seminole Extra Early.

Seminole Early. Bow. For similar names see *Seminole.*

Seminole Extra Early. Cox. For similar names see *Seminole.*

Shumway's Japanese Pie Citron. Entered as *Japanese Pie Citron.*

Southern Rattlesnake. Bai Blg Bow Cox Grw TG K&F Pnt SC Thr.

Similar names. See *Rattlesnake.*

Seedsmen's synonyms. *Gypsy*, Bow Cox Grw K&F Pnt. *Striped Gypsy*, SC.

Southern Sugar Loaf. Shw. For similar names see *Sugar Loaf.*

Southern Triumph. Tat. For similar names see *Triumph.*

Stokes' Early. D&H. For similar names see *Stokes' Extra Early.*

Stokes' Extra Early. Anb Del Fmr Frd GH H&P J&S Mic MV Rob *Shw* Sim Sox.

Similar names. Stokes' Early.

Striped Gypsy. Bdg Bui Bur CF Crs Drr H&C Hlm PM Mhl M&S Pri Qkr SC.

Similar names. See *Gypsy.*

Seedsmen's synonyms. *Augusta Rattlesnake,* Bui. *Georgia Rattlesnake,* Bur Eic H&C Mau M&S PM Qkr. *Jackson,* Bdg. *Rattlesnake,* Bdg Drr Hlm Mhl. *Southern Rattlesnake,* SC.

Sugar Loaf. MWJ.

Similar names. Southern Sugar Loaf, Augusta Sugar Loaf.

Sweet Heart. Alr Anb Ar Bak Brd Brt Btl Bkt Ber *Blg* Bow Bgg Bri Brn Bru Buc Bui Bur Brr CE Cle C&B Col CF Cox Crs Cur Del DD Drr Drw Ebe Ebr Emr RE Fmr Fer Fld Frd Ger Gls Gdn GH GN Ggy Gfg G&T Grw Ham Hrn Hen H&C Hop Hse Iml Iow Jac MWJ J&M J&S Jns Ken *Kg* Kos Kra Lam Lnr LB Liv JL Loh Lon Mgd Man PM Mns Mas Mau May JCM JMM *Mic* Mhl Mls MV Neb Nol NI NK OV Old Pac Pg HP Pir Prn Pne Pnt Por Pri Qkr Rtk *Ren* Rce Rob Roc Rt RP Sal S&R SC Shw S&O Shm Sox Spf SB S&H S&W Tat Tem TB Thr Thb Til *Tpk* Trm T&B *Vl* Vau Vk Web W&D Wdr WS Yng.

Similar names. Ferry's Sweet Heart, Indiana Sweet Heart.

Sweet Siberian. Hen.

Tait's Improved Black Diamond. Entered as *Black Diamond.*

Triumph. Alx Alr Anb Bak Brd Bkt Ber Blg Bou Buc Bur Brr Cam Cle CA Del Ebr Eic Evr Fer Frd Gdn GH Ggy Gry G&T Hde H&C Hly *Iow* Jac MWJ Jns Kg Lan *Lnr* Mgd Man Mns *May* JCM JMM M&S Neb Nol Pnt Ptt Raw *Rce* Rob Roc *RP* Shw Shm Spf Tex TB Thm Vl Vau Web Wd WS Yng.

Similar names. Early Triumph, Girardeau's Triumph, Premium Triumph, Southern Triumph.

Utah. Wlt.

Vaucluse. Bur Rce Rob Shm Tem.

Similar names. Vaucluse Red-Seeded.

Vaucluse Red-Seeded. J&S PM. For similar names see *Vaucluse.*

Vaughan's Black Diamond. Entered as *Black Diamond.*

Vick's Early. Bel Ber Brk Bdg Brn Brb Bur CF Cox Dun Eas Emr Evr Fqr Fst Gry TG H&P *Kg* Lea Lnr Man PM May Mic Neb NI Prn Pne Raw Ree Rob S&F Shw S&O Sim Sox Tat Vl Vk Vin Wea Wyg Y&H.

Similar names. Vick's Extra Early.

Vick's Extra Early. *CE* Del GH Hop Rce Shm Tem.

Similar names. See *Vick's Early.*

Vine Peach. MWJ. For similar names see *Melon Peach.*

Volga. Bkt Bgg Bdg CE Crs Ger Hrs J&M Loh MV Mzy Rce Rob *Sox* Vk Vin W&D.

White Dixie. *M&S.* For similar names see *Dixie.*

White Gem. Bur *CE* Cox Evr Frd Hst J&S Pri Ree Rce Rob Shm.

Similar names. See *Kolb's Gem.*

White Lodi. *Pac* T&B. For similar names see *Lodi.*

White Queen. Evr. For similar names see *Cuban Queen.*

Will's Sugar. Wll. For similar names see *McIver's Sugar.*

Wonderful. Drr JMM. For similar names see *McIver's Sugar.*

Seedsmen's synonyms. *McIver's Sugar,* Drr.

Wonderful Japanese Pie Citron. Alr. For similar names see *Citron.*

Wonderful Sugar. Buc *CF* GN Mau Mls Old Pac Rob Roc Sal Spf Tat Tem Thr.

Similar names. See *McIver's Sugar.*

Seedsmen's synonyms. *McIver's Sugar,* Rob S&H.

U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN NO. 22.

B. T. GALLOWAY, Chief of Bureau.

INJURIOUS EFFECTS OF PREMATURE POLLINATION;

WITH GENERAL NOTES ON ARTIFICIAL POLLINATION AND THE SETTING OF FRUIT WITHOUT POLLINATION.

BY

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VEGETABLE PATHOLOGICAL AND PHYSIOLOGICAL INVESTIGATIONS.

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LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief,
Washington, D. C., May 22, 1902.

Sir: I have the honor to transmit herewith a paper on the Injurious Effects of Premature Pollination, with General Notes on Artificial Pollination and the Setting of Fruit without Pollination, and respectfully recommend that it be published as No. 22 of the Bureau series of bulletins. The paper was prepared by Mr. Charles P. Hartley, assistant in physiology in the Plant-Breeding Laboratory, Vegetable Pathological and Physiological Investigations, and was submitted by the Pathologist and Physiologist.

Respectfully,

B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

PREFACE.

The importance which plant breeding has assumed in the improvement of varieties of cultivated plants makes it desirable that careful attention be given to every detail involved in the production of hybrids. The accompanying paper, by Mr. Charles P. Hartley, assistant in physiology in the Plant-Breeding Laboratory, Vegetable Pathological and Physiological Investigations, is the result of a study of the effects of premature pollination in its relation to the setting of fruit. The investigation has demonstrated the decidedly injurious effect of premature pollination in several cases, and the fact is emphasized that in order to secure successful results in the production of hybrids and the setting of fruit, careful consideration must be given to the time when pollen should be applied to the stigma. It is believed that the results here presented will be of service to investigators and to workers in plant breeding.

Albert F. Woods,
Pathologist and Physiologist.

Office of the Pathologist and Physiologist,
Washington, D. C., May 21, 1902.

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TEXT FIGURE.

FIG. 1. Flowers of *Sabbatia angularis:* (*a*) Appearance while pollen is being shed; (*b*) Stigma and anthers avoiding each other; (*c*) Receptive stigma and deciduous anthers	37

INJURIOUS EFFECTS OF PREMATURE POLLINATION;

WITH GENERAL NOTES ON ARTIFICIAL POLLINATION AND THE SETTING OF FRUIT WITHOUT POLLINATION.

INTRODUCTION.

It is quite generally taken for granted that if pollen is placed on the stigmas of flowers some time before they are receptive it will simply remain there until the stigmas become mature, and then germinate and fertilize the flowers. Darwin,[a] in speaking of the various kinds of flowers with which he experimented in order to show the devitalizing effect of self-fertilization, says:

> As the flowers which were crossed were never castrated, it is probable or even almost certain that I sometimes failed to cross-fertilize them effectually, and that they were afterwards spontaneously self-fertilized. This would have been most likely to occur with dichogamous species, for without much care it is not easy to perceive whether their stigmas are ready to be fertilized when the anthers open. But in all cases, as the flowers were protected from wind, rain, and the access of insects, any pollen placed by me on the stigmatic surface while it was immature would generally have remained there until the stigma was mature, and the flowers would then have been crossed as was intended.

Such would perhaps have been the case with some flowers, but the experiments herein described show that it is not true of all. On the contrary, they furnish proof for a statement to the effect that a premature pollination is destructive to the flowers of some plants, preventing them from forming seeds. The experiments and microscopic examinations show that with tobacco at least premature pollination not only results in a failure of the flower to set seeds, but that the growth of the pollen tubes into ovaries before the ovules are mature enough for fertilization results in an injury which causes the flowers to immediately fall.

The facts that tobacco flowers fall in about thirty-six hours after pollen is applied to the immature pistils, whether the flowers be previously emasculated or not, and that they do not fall if emasculated and not pollinated, nor if pollinated with other pollen than tobacco pollen, and further, that pollen tubes are found penetrating the styles and ovaries of the fallen flowers, give good reasons for the statement that the application of pollen to the pistils of some flowers before the pistils are mature enough to receive the pollen produces an injury which results in the death of the flowers.

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[a] Cross and Self-Fertilization in the Vegetable Kingdom, p. 23.

In working with the different kinds of flowers herein mentioned, except *Datura tatula*, the following method was employed: Ten similar flower buds were selected and treated in exactly the same manner and labeled by means of numbers, the ten flowers of each experiment bearing the same number. When the results were to show the effects of the different methods of treatment, the experiments were performed at the same time and on similar flowers equally distributed on the same plants. This made all conditions alike for the experiments to be compared, except the treatment of the blossoms.

At the end of the remarks regarding each kind of flower, a table is given describing all the experiments with that flower. In these tables, as elsewhere, the experiments are designated by the original numbers attached to the flowers when the work was begun.

EXPERIMENTS WITH TOBACCO BLOSSOMS.

The conclusions in regard to the work with tobacco blossoms are drawn from the behavior of 670 hand-pollinated flowers of Cuban tobacco (*Nicotiana tabacum*). The different questions or phases of the work were tested by experiments consisting in every instance of 10 similar flowers, making in all 67 experiments. Quite often several of these numbered experiments were exact repetitions and as such their results compare favorably. By combining these like experiments we get results based upon work with larger numbers of flowers. Thirty-two of the 67 experiments, while throwing light on the questions here considered, were made primarily for the purpose of settling other questions and to test the longevity of tobacco pollen, and so will not be referred to in this article. This will explain why the experiments with tobacco blossoms given in Table I are not numbered consecutively. It may be mentioned here that pollen that had been kept in tinfoil for three months, while still capable of producing germinative seeds, was not so destructive to immature pistils as was fresh pollen, perhaps because the old dry pollen germinated less readily on the young stigmas before the exudation of stigmatic fluid which indicates the receptive period. At one time it was thought that this explanation was corroborated by the fact that no seed pods resulted from pollen two months old when used on mature flowers in the field, while pollen three months old gave good results on similar flowers in the greenhouse. It was thought that perhaps the dry pollen germinated with greater ease in the moist greenhouse. Such may have been the case, but it is now thought that the hot summer weather affected the pollen. The pollen used in the field, though only two months old, was exposed to, and perhaps injured by, the hot weather of July and August, while that used in the greenhouse experienced the cooler weather of April, May, and June. When fresh pollen was used the destructive effect of premature pollination was as pronounced on the flowers in open air as on those in the greenhouse. That a saturated atmosphere is sufficient to start the growth of tobacco pollen was shown by placing some on the under surface of a cover glass over a drop of water in the well of a microscopic slide. The next day pollen tubes were found growing from many of the grains.

The seeds resulting from these experiments were not all planted to test their germination, but seeds from several of the tobacco experiments were tested and the large plump ones (Pl. III, fig. 6), which, when crushed, showed that they contained oil, germinated well, while the smaller, light, chaffy ones failed to germinate. It was therefore thought unnecessary to test the germination of all the seed, and good ones were distinguished for the most part by their appearance.

When the first flowers were operated upon—i. e., those of experiments 1, 2, and 3—very little attention was paid to the age of the flowers chosen, other than to see that they had not yet opened. This is now known to account for the great variation in the number of pods obtained. (See Table I.) As the work proceeded, however, it was found that the age of the flower at the time of pollination was of the utmost importance in order to obtain results of value, and the time was recorded in hours in performing all experiments after the first six. Finding that the age of the flower operated upon was the most vital condition entering into the experiments, a very careful study of the growth of the flowers was made. A number of young flower buds of various ages were labeled with tags upon which were placed the date and size of the bud, and each day thereafter the size and condition of these buds and the resulting flowers and seed pods were written on the respective labels. This was repeated several times. The weather conditions were found to exert a marked effect on the rapidity of development, but it was noticed that the size and appearance of the corollas were good indications of the advancement of the inclosed anthers and stigmas, so that consequently the corollas were used in the experiments as a means of designating the age of the flower buds operated upon. The 35 experiments performed with tobacco to settle the destructive influence of premature pollination are outlined and their results given in Table I (p. 17). Tobacco being a self-fertilizing flower, the stigma is receptive at the time the anthers open, and the anthers usually begin to shed pollen when the flower begins to open.

Comparing the length of the corolla with the length of time before the corolla is fully open and the stigma receptive, we find the following conditions to exist when the plants are thrifty and the weather fairly favorable:

Four days before the stigma is receptive the corolla does not extend beyond the calyx lobes, which are one-half inch long. The flower labeled *c*, in Pl. I, fig. 1, is in this stage of development and is the same as those which were chosen for experiments 22 and 35. (See Table I.) The growth of an unmolested bud of this age can be studied by comparing the small unlabeled bud on the right in Pl. I, fig. 1, with resulting flower and seed pod in Pl. I, fig. 2, and Pl. II, fig. 1, respectively.

Three days before the stigma is receptive the corolla is one-fourth to one-half inch longer than the calyx (flowers *d* and 6, Pl. I, fig. 1). Flowers of this age were chosen for 10 of the experiments given in the table.

Two days before opening, the corolla is three-fourths to 1 inch longer than the calyx, as shown by flowers 1 and 2 in Pl. I, fig. 1. Flowers of this age, as well as younger ones, were found to be killed by pollination. (Compare figs. 1 and 2, Pl. I.)

One day before opening, the corolla is 1¼ to 1¾ inches longer than the calyx, the terminal one-fourth inch being of a red color. Flowers 3, 4, 5, and *a*, Pl. I, fig. 1, are of this age and can be pollinated with fair success (experiments 4, 6, etc.), but the results will be much better if the work is done twelve hours later (as in experiments 16 and 36), or if the flowers are emasculated at this age, or younger, and pollinated when the pistils become receptive (experiment 7 or 20).

The next day the corolla and anthers open at the same time and the receptive pistil is of proper length and maturity to receive the pollen directly from the opening anthers. One month after pollination the seed pod is ripe.

Having obtained this data in regard to the manner of growth, the flowers were designated in the notes made at the time the experiments were performed as "three days before pistils would have been receptive," "one day before pistils would have been receptive," etc.

By the time the results of the first 10 experiments were obtained it was definitely known that an abundance of fresh pollen applied to tobacco flowers two or three days before the pistils become receptive results in the falling of the flowers without setting fruit, while flowers operated upon one day before becoming fully open and receptive give fair percentages of fruits, as shown by experiments such as Nos. 7 or 8. But it was necessary to find out why the former failed while the latter gave fair percentages. It might be supposed that the younger flowers were more injured by emasculation, but several experiments soon proved that this is not the case. In experiment 20 the flowers were emasculated three days before becoming receptive and pollinated when receptive, resulting in 100 per cent of fruits, while in experiment 21 they were emasculated and pollinated three days before becoming receptive, resulting in no fruit whatever. The only difference in experiments 20 and 21 is in the time of pollination. Other experiments, for example Nos. 18 and 19, which are described in Table I (p. 17), prove that the falling of the young flowers is not in any way caused by the early emasculation, while in experiments 35, 38, and 40 they fell soon after being prematurely pollinated, although they had not been emasculated.

A study of figs. 1 and 2, Pl. I, will also show that the falling of the flowers is not associated with the emasculation. For fig. 1 the photograph was taken immediately after emasculating and pollinating the flowers, and for fig. 2 the photograph was taken forty-eight hours later. The lettered flowers on the right-hand stem of the plant were simply emasculated at the same time the numbered flowers on the left-hand stem were emasculated and pollinated. The prematurely pollinated flowers, 1, 2, and 6, shown in these illustrations, had all fallen within forty or less hours of the time they were pollinated, while those of the same age, *a*, *c*, and *d*, that were emasculated and not pollinated, continued to grow. These flowers were found fallen at 9 o'clock in the morning, the exact time of their falling not being known; but three other tests made at different times showed that in good growing weather such prematurely pollinated blossoms fall in about thirty or thirty-six hours after being pollinated. Flowers 3, 4, and 5 were treated exactly as were flowers 1, 2, and 6, but set seed instead of falling, because they were almost mature when pollinated. Fig. 1, Pl. II, is from a photograph of the same plant as shown in Pl. I, taken eight days later than fig. 1, and shows the seed pods which grew from flowers 3, 4, and 5, while the lettered ones that were emasculated but not pollinated are just fallen, making a difference of six days between the falling of those prematurely pollinated and those not pollinated.

There was always a great difference noticeable in the manner of falling of the prematurely pollinated blossoms and those that fell from other causes, such as non-pollination. When the fall was the effect of premature pollination, the separation of the flower from the plant was rapid and complete and not accompanied by any previous wilting of the flower, but invariably occurred at a joint situated at the base of the peduncle shown at *a*, Pl. III, fig. 3. Flowers 1 and 2, Pl. III, fell within some time less than thirty-nine hours after being pollinated, while flowers 3 and 4, which were emasculated at 12 m., February 27, and not pollinated, had not yet fallen at 9 a. m., March 5, when they were cut and photographed.

While comparing blossoms that had been emasculated and prematurely pollinated with similar ones that had been emasculated and bagged but not pollinated, the persistence with which the pistils retained their fresh receptive appearance was very noticeable and led to a few slight tests of the length of time the pistils could remain receptive and still result in the production of seed when pollinated. By referring to experiment 18 in Table I, it will be noticed that the 10 flowers emasculated June 7 and found receptive June 9 were not pollinated till June 14, at which time the corrollas of the flowers were dead or badly withered, while the pistils were still fresh and receptive. On June 20 five pods were found growing, but they did not appear as thrifty as those of experiment 16 in which the pistils were pollinated at the proper time. In experiment 9 the pistils became receptive May 13, but were not pollinated until the next day, when pollen that had been left in the laboratory for three days was applied. The stigmas at the time of pollination were covered with a large drop of stigmatic fluid, in which the pollen seemed to dissolve and disappear from view. The experiment resulted in the setting of but three pods. It is thought that the reason for so poor a percentage of seed pods is the placing of the dry pollen in so large a drop of stigmatic fluid, perhaps causing the pollen grains to swell and burst; but this is only conjecture, for no attempt was made to ascertain the true behavior of the pollen grains.

In experiment 37 the pollen was placed on about one-fourth the entire surface of receptive stigmas and on only one side of the small suture tnat divides the stigma into equal parts. While the pods were still green four or five showed a marked one-sidedness, but when they had ripened and were cut for examination they all seemed as symmetrical as the general crop of pods. On cutting them, however, the good plump seeds were almost altogether in one-half of the ovary, the other half containing light, chaffy, undeveloped seeds.

It being fully determined that pollen applied to the entire stigmatic surface of premature pistils results in the falling of the flowers, some tests were made to determine the effects of smaller quantities of pollen. In experiment 41 fresh pollen was applied to one-fourth of the stigmatic surfaces of pistils that would have been receptive in three days, and the flowers were bagged without emasculation. Four days later but one flower had fallen, while it is safe to say that had the stigmas been entirely covered with pollen 90 per cent would have fallen. They were naturally self-pollinated and 8 set pods. No explanation is known why an occasional prematurely pollinated flower failed to fall (experiments 39 and 40) unless it be that accidentally a portion of the stigmatic surface escaped pollination and the flowers continued to grow because there was still a chance for them to set some seeds. Experiments 44 and 46 (see table) were treated as was experiment 41, except that the flowers were emasculated. But two pods set in experiment 44 and four in experiment 46; the other flowers withered and fell, not because a small quantity of pollen was applied prematurely, but because of a lack of pollination after becoming receptive. In experiment 37 the pollen was placed on only one side of the medial suture and seeds were found mostly in one-half of the pods, while in experiments 44 and 46 it was placed across the stigma in a line at right angles to the suture, and the well-developed seeds were found scattered among the undeveloped ones in both halves of the seed pod. From the partition which divides the ovary (Pl. III, fig. 7) a sharp line can be traced up both sides of the pistil and be seen to terminate in the suture just mentioned. That there is a close relation between the pollination of one-half of the stigma and the setting of seeds in the corresponding half of the ovary is certain, but no attempt was made to ascertain whether pollen grains placed on one-half of the stigma are ever able to fertilize ovules in the opposite half of the ovary. The fact that pollen tubes all descend in the delicate conductive tissue occupying the center of the pistil might indicate that the tubes are free to grow to any portion of the ovary, but stained sections show that they grow parallel with one another and seem to follow the long, thin-walled cells of the conductive tissue (Pl. II, fig. 3). In the ovary the tubes make many short turns in various directions (Pl. II, fig. 5).

While flowers two days before opening fall as completely as any, when their stigmas are entirely covered with pollen, they nevertheless recover from a slight premature pollination better than younger flowers. This can be noticed by contrasting experiments 44 and 46 with experiment 47.

As will be noticed in the tables, several substances were substituted for pollen. This was done in an effort to find if other substances could injure the stigmas and cause the flowers to fall as in the case of premature pollination. Nothing besides pollen was found to have this effect. Its damage goes deeper than the stigma.

As a mere irritation of the stigma is thought to have a tendency to cause some flowers to set fruit, it may not be amiss to view these experiments with this in mind. Of 60 emasculated flowers that had their stigmas covered with substances other than pollen, 14 set fruits, while of the 20 that were emasculated but never pollinated 2 set fruits. As a general thing the capsules resulting from the flowers that were not pollinated, and likewise those resulting from flowers whose stigmas were covered with some substance other than pollen, contained only small compressed undeveloped seeds, but the two pods obtained in experiment 52 by treating the fully receptive stigmas with magnesium sulphate contained some spherical seeds of almost full size which looked like good seeds, but when cut into proved to be hollow spheres.

By combining like experiments in which flowers of various ages were plentifully pollinated with fresh pollen, we get the following percentages of seed pods, of which it can be said that none resulting from the pollination of flowers earlier than one day before opening contained germinative seeds:

	Per cent.
From 20 flowers pollinated four days before opening, 1 seed pod set	5
From 40 flowers pollinated three days before opening, 2 seed pods set	5
From 20 flowers pollinated two days before opening, 0 seed pods set	0
From 40 flowers pollinated one day before opening, 31 seed pods set	77
From 20 flowers pollinated one-half day before opening, 19 seed pods set	95
From 20 flowers pollinated when fully receptive, 19 seed pods set	95

Dividing these into two groups, namely, those pollinated more than one day before opening and those pollinated one day or less than one day before opening, they show that the former set 4 per cent of seed pods which contained no germinative seeds, while the latter set 86 per cent of seed pods which contained germinative seeds.

MICROSCOPIC STUDY OF TOBACCO PISTILS AND OVARIES.

Soon after becoming detached from the plant some of the prematurely pollinated blossoms were carried to the laboratory and the stigmas and pistils examined. That the pollen grains had germinated and penetrated the stigma could be seen, but the growth of the pollen tubes down the style could not be followed in the fresh material. This led to the premature pollinating of one series of blossoms and the mature pollinating of another series for microscopic study. The flowers of both these series were emasculated and kept bagged so that no pollen reached their stigmas except that purposely placed there. By this means the rapidity of growth of the pollen tubes was to some extent determined. At various intervals some flowers of each series, as well as some of various ages that had never received pollen, were cut and killed in Flemming's chromic-aceto-osmic acid solution and carried through alcohols and imbedded, sectioned, mounted, and stained with the safranin-gentian-violet triple stain. By this means the pollen tubes could be found penetrating the stigmas (Pl. II, fig. 2), in the styles (fig. 3), entering the ovary and dispersing among the ovules of the prematurely pollinated flowers (figs. 4 and 5).

Flowers collected twenty-two hours after being prematurely pollinated showed pollen tubes on and penetrating the stigma and some a short distance into the style but none in the ovaries, while in ovaries of flowers that had fallen because of being prematurely pollinated pollen tubes were abundant. Figs. 4 and 5 show pollen tubes in the ovaries of such flowers. In the sections that have been photographed pollen tubes are more abundant than they appear in the photomicrographs, but do not show because they are not in the same focusing plane.

Although the ovaries of the prematurely pollinated flowers contain many pollen tubes, none has been found entering the micropyle of an ovule, and in just what way the flower is destroyed has not been determined; but the kindness of Dr. Webber in examining the sections enables the writer to state definitely that the ovules, though encompassed with pollen tubes, are much too immature for fertilization, the embryo sacks being in the one and the two celled stages. The study of an abnormal condition of this kind may help to explain the attractive force which enables pollen tubes to find and enter ovules at the proper time.

TABLE I.—*Experiments with tobacco blossoms.*

[Each experiment performed upon 10 similar flower buds.]

Experiment No.	Pistil would have been receptive in—	When emasculated.	When pollinated.	Remarks regarding pollen and pollination.	When examined, with remarks on condition.	Number of fruits.	Remarks.
	Days.	1900.	1900.				
1	1 to 3	Apr. 26	Apr. 26	Fresh pollen applied abundantly	May 10 and May 21, pods were ripe May 21.	6	Flowers varied in age.
2	1 to 3	....do	....do	....do	May 10; pod was ripe May 21	1	Quite young flowers used.
3	1 to 3	Apr. 30	Apr. 30	....do	May 10; May 21, large and green. June 8, ripe.	8	Flowers varied in age.
4	1	May 11	May 11	....do	May 21; June 8, 7 ripe pods	7	
5	1	....do	....do	Only a few grains of fresh pollen applied to each pistil.	May 21, ovaries black but not fallen loose.	2	Only 9 flowers pollinated.
6	1	....do	....do	Fresh pollen applied abundantly	May 21; June 8, pods were ripe	7	
7	1	3 p.m., May 11	11 a.m., May 12	Pollen 1 day old applied abundantly	....do	9	When pollinated 2 pistils showed injury.
8	1	10 a.m., May 12	10 a.m., May 12	....do	....do	8	
9	1	11 a.m., May 12	11 a.m., May 14	Pollen 3 days old applied abundantly	May 21, pistils dead but not fallen	3	Large drop of stigmatic fluid on stigma when pollinated.
10	2	4 p.m., May 12	4 p.m., May 12	Pollen 1 day old applied abundantly	May 21, all found fallen	0	
11	2	10 a.m., May 12	10 a.m., May 22	Fresh pollen applied abundantly	June 4, all found fallen	0	
16	½	2 p.m., June 4	2 p.m., June 4	....do	June 14, 10 good growing pods	10	
18	2	11 a.m., June 7	12 m., June 14	....do	June 9, full size and receptive	5	Pods lack vigor.
19	3	10.30 a.m., June 7	2 p.m., June 9	....do	June 20, 9 thrifty seed pods	9	Tenth one died before pollinated
20	3	3 p.m., June 9	11 a.m., June 12	....do	June 20, 10 thrifty growing pods	10	Were receptive when pollinated
21	3	4 p.m., June 9	4 p.m., June 9	....do	June 12, 11 a.m., all 10 found fallen	0	Fallen flowers fixed for study. (See Pl. II, figs. 4 and 5.)
22	4	11 a.m., June 28	11 a.m., June 28	....do	July 11, only 1 grew after pollination	1	Very small pod, no seeds.
35	4	Never	10 a.m., Oct. 30	....do	Nov. 1, 10 a.m., 4 had fallen	0	Grew but little after pollination
36	⅙	12 m., Oct. 30	12 m., Oct. 30	....do	Nov. 14, 9 good healthy pods, ripe Dec. 24.	9	Many good seeds. (See Pl. III, figs. 6 and 7.)
37	½	2 p.m., Oct. 30	2 p.m., Oct. 30	Fresh pollen applied scantily to one-half of stigmas.	Nov. 14, 10 small pods, 4 were one-sided.	10	A few good seeds.
38	3	Never	11 a.m., Oct. 30	Fresh pollen applied abundantly	Nov. 1, 10 a.m., all 10 found fallen	0	Compare with experiment 35.

TABLE 1.—*Experiments with tobacco blossoms*—Continued.

Experiment No.	Pistil would have been receptive in—	When emasculated.	When pollinated.	Remarks regarding pollen and pollination.	When examined, with remarks on condition.	Number of fruits.	Remarks.
	Days.	1901.	1901.				
39	3	11 a. m., Jan. 5	11 a. m., Jan. 5	Fresh pollen applied abundantly	Jan. 10, 9 fallen; Jan. 29, 1 pod still growing.	1	9 grew but little after pollination.
40	3	Never	11.30 a. m., Jan. 5	do	Jan. 10, 8 found fallen; Jan. 29, 1 pod growing.	1	Pod small.
41	3	do	11 a. m., Jan. 10	Fresh pollen applied to one-fourth surface of stigmas	Jan. 14, 1 found fallen; Jan. 29, 8 growing.	8	Self-pollinated Jan. 13.
[a]							
44	3	2 p. m., Jan 19	2 p. m., Jan. 19	Fresh pollen applied to one-fourth surface of stigmas	Jan. 29, 8 found fallen; Feb. 9, 2 growing pods.	2	Pods contained a few good seeds.
45	2	11.30 a. m., Jan. 29.	11.30 a. m., Jan 29	Corn flour substituted for pollen	Feb. 4, 9 a. m., none fallen, still receptive.	3	Pods small, seeds poor. (See Pl. III, figs. 9 and 10.)
46	3	10 a. m., Jan. 31	10 a. m., Jan. 31	Fresh pollen applied to one-fourth surface of stigmas	Feb. 9, 5 found fallen; Mar. 13, 4 ripe pods.	4	Pods contained a few good seeds.
47	2	12 m., Jan. 31	12 m., Jan. 31	do	Feb. 9, 8 still growing; Mar. 8, 8 ripe pods.	8	Do.
48	2	11 a. m., Feb. 4	11 a. m., Feb. 4	Air-slacked lime substituted for pollen	Feb. 9, still fresh; Feb. 28, 6 found fallen.	4	1 pod photographed. (See Pl. III, fig. 8.)
49	2	10.30 a. m., Feb. 5	10.30 a. m., Feb. 5	Azalea pollen substituted for tobacco pollen	Feb. 9, 8 still fresh and receptive; Apr. 8, 1 ripe.	1	Pod small and seeds chaffy.
50	2	9 a. m., Feb. 15	9 a. m., Feb. 15	Corn flour substituted for pollen	Feb. 28, 4 found fallen, Apr. 8, 4 ripe pods.	4	Pods half size, seeds chaffy.
51	3	Mar. 12	Never	Emasculated and bagged, but never pollinated.	Apr. 8, 2 small pods, others withered.	2	Pods one-half and one-third size, seeds chaffy.
52		do	Mar. 12	Magnesium sulphate substituted for pollen	Apr. 8, 2 ripe pods (half size), others withered.	2	Seeds spherical, but hollow.
53		1.30 p. m., Apr. 8	Never	Emasculated and bagged, but never pollinated.	Apr. 25, all found dead	0	Ovaries did not enlarge.
54	1	9 a. m., Apr. 25	9 a. m., Apr. 26	Magnesium sulphate substituted for pollen	May 24, all found dead	0	Do.

[a] Experiments 42 and 43 were not recorded until the day after the work was performed; so results are not considered reliable.

EXPERIMENTS WITH BLOSSOMS OF DATURA TATULA.

The destructive effect of a premature pollination having been found to be so pronounced in the case of tobacco flowers suggested a trial of its effect on a related plant. Some young jimson weeds (*Datura tatula*) were placed in pots and kept in a greenhouse, where they soon came into flower, but unfortunately did not bloom profusely enough to furnish similar flowers in sufficient quantity to admit of experiments such as were performed with tobacco flowers. The following method was therefore adopted: From day to day these plants were examined and flowers in various stages of advancement were operated upon and the records made on labels attached to the plants at the petiole of each flower. As the seed pods resulting from the labeled flowers ripened or dried up they were cut and a record made of the size of the capsule, the number and condition of the seeds, etc. On the completion of the work an examination and classification of these labels showed results similar to those obtained in the case of tobacco flowers, with the one exception that the capsules of the prematurely pollinated flowers did not fall loose from the plants, but hung on for several weeks, although the ovaries did not grow any after pollination and contained no seeds. Pods resulting from flowers to whose stigmas pollen had been applied at the proper time were of normal size—1½ inches in diameter—and full of good, plump seeds; while pods from prematurely pollinated flowers were scarcely larger than they were when the flowers were pollinated, usually one-eighth to one-fourth of an inch in diameter, and contained no seeds. The only instances in which good seeds were found in pods from prematurely pollinated flowers were those in which the stigmas had been pollinated when exceedingly young and the flowers not emasculated. In some cases of this kind, and the same is true of tobacco flowers, the very young stigmas overcame the results of the early pollination and the flowers were later self-pollinated and produced seed. Indeed, the work with Datura blossoms indicates fully as strongly as does that with tobacco flowers that there may be a stage a certain time before maturity when the flowers suffer more from premature pollination than they would suffer from an earlier pollination. It may be necessary for the pistils or stigmas to reach a certain stage of development before pollen tubes can penetrate them.

EXPERIMENTS WITH COTTON BLOSSOMS.

While hand pollinations were being made in order to obtain hybrids between Sea Island and upland cottons, the question arose as to whether the pollen could be applied at the time of emasculation with as good results as if applied to perfectly mature pistils. If such could be done much labor would be saved. Accordingly the work was arranged in experiments of 10 flowers each in order to compare the results of the two methods. The pollinating was done on Sea Island cotton with pollen of the Mit Afifi variety. With the exception of experiments 5 and 6 the cotton experiments were with flower buds that would have opened naturally the day after they were emasculated. Such a bud is shown by Pl. IV, fig. 13. Figs. 14 and 15 show how emasculation was performed. Experiments 5 and 6 were with very young buds that would have opened in four or five days. The flowers of experiment 5 were pollinated when emasculated and those of experiment 6 two days later. No fruits set in either experiment. The flowers of experiment 1 were pollinated when emasculated, one day before the flowers would naturally have opened, and produced but one small boll; while the flowers of experiment 2, as near like the others as could be chosen on the same plants and emasculated at the same time, were not pollinated until the next day, and produced seven good bolls. In order to obtain Mit Afifi pollen that was pure and that had not been mixed with other kinds of pollen by the visits of insects, the flowers were collected before opening, and in each case just one day before the pollen was applied to the flowers. Experiment 3 was an exact repetition of experiment 1 and produced no bolls; while experiment 4, an exact repetition of experiment 2, produced ten good bolls. These results are decidedly in favor of waiting until the pistils are fully mature before applying the pollen, but work similar to the above, performed in 1901 on two different varieties of upland cotton, has given results so different from those obtained with Sea Island cotton that further study of the cotton flower is necessary before its reaction to premature pollination is understood. Although differing from the results obtained with Sea Island, the work with upland varieties still speaks in favor of waiting until the pistils are mature before applying the pollen, not so much, however, in order to obtain a greater percentage of bolls as to obtain bolls of larger size and more symmetrical shape, many bolls from the prematurely pollinated blossoms being small and one-sided.

The work with the upland varieties was conducted in the same manner as that with the Sea Island, pollen of Sea Island being used in experiments 7, 8, and 9. The flowers of experiment 7 on the Braddy variety were pollinated when receptive and produced 10 good bolls. Those of experiment 8 were pollinated when emasculated and again the next day, and produced 5 bolls, 3 of which were larger on one side than on the other and hardly as large as the bolls of experiment 7. The flowers of experiment 9 were pollinated when emasculated and produced 9 small bolls, 4 of which were decidedly larger on one side than on the other.

Experiments 10, 11, and 12 were upon the King variety of upland cotton, and pollen of the same variety was used. The flowers of experiment 10 were pollinated when receptive and produced 6 good bolls. Those of experiment 11 were pollinated when emasculated and again the next day and produced 10 small bolls, 5 of which were decidedly one-sided. The flowers of experiment 12 were pollinated when emasculated and produced 7 rather good bolls.

In making the second pollination of experiment 8 it was noticed that the pistils of the flowers in experiment 7 which had not been prematurely pollinated were longer than those of experiment 8, but they were not measured because it was then too late to determine whether they had been precisely of the same length when emasculated. To determine whether premature pollination checks the growth of young pistils, the pistils of experiments 10 and 11 were accurately measured at the time of emasculation, 8 of each experiment being each five-eighths of an inch and 2 three-fourths of an inch in length, so that the aggregate length of the pistils was 6½ inches. The flowers of experiment 11 were pollinated twenty-one hours before they were fully open and again twenty-one hours later, when the pistils were again carefully measured and found to give an aggregate length of 8⅛ inches, an increase of 1⅝ inches since emasculation, during which time the pistils of experiment 10, which were not prematurely pollinated, had made an aggregate increase of 2¼ inches. This is to say that the application of pollen to 10 immature pistils reduced their growth during twenty-one hours by five-eighths of an inch.

The conclusion to be drawn from the cotton experiments is in favor of making an extra visit to the emasculated flowers to apply the pollen rather than to apply it when the flowers are emasculated. This is not only because larger percentages of fruits will result, but more especially because better fruits are obtained.

It is the opinion of the writer that the variation in the results obtained with Sea Island and upland cotton flowers similarily treated is largely due to the fact that the pistils were closely approaching a receptive condition. Of course this would cause no variation in the results, providing the size of the flowers and length of time before opening indicate the same stage in the development of the ovules of both kinds of cotton, but this may not be the case. The one-sidedness of many of the bolls resulting from early pollination indicates that only a portion of the ovules were mature enough for fertilization. Perhaps pollination a few hours earlier would have resulted in the falling of all the flowers. Tobacco flowers pollinated one day before opening give fair results, while those pollinated two days before opening are killed. It is thought that the same will be found true of cotton flowers, as indicated by the results of experiments 5 and 6, but more work with cotton blossoms is necessary before their behavior will be well understood.

TABLE II.—*Experiments with cotton blossoms.*

[Each experiment performed upon 10 similar flower buds.]

Experiment number.	Pistils would have been receptive in—	When emasculated.	When pollinated.	Variety of cotton and kind of pollen used.	When examined, with remarks on condition.	Number of mature fruits.	Remarks.
		1900.					
1	18 hours	4 p. m., Sept. 12	4 p. m., Sept. 12	Sea Island, Mit Afifi pollen 1 day old	Oct. 11, all fallen except 1 small boll.	1	
2	do	do	11 a. m., Sept. 13	do	Oct. 11, 7 bolls growing, 2 started but afterwards fell.	7	
3	24 hours	11.30 a. m., Sept. 13	11.30 a. m., Sept. 13	do	Oct. 11, 8 set but soon died and fell.	0	
4	20 hours	2 p. m., Sept. 13	10 a. m., Sept. 14	do	Oct. 11, 10 good bolls still growing	10	
5	4 or 5 days	3 p. m., Sept. 13	3 p. m., Sept. 13	Sea Island, fresh Mit Afifi pollen	Oct. 11, pistils did not grow to mature length.	0	
6	do	3.30 p. m., Sept. 13	10 a. m., Sept. 15	do	Oct. 11, pistils did not grow to mature length.	0	Pistils of fallen flowers were longer than in experiment 5.
		1901.					
7	21 hours	10 a. m., Aug. 28	10 a. m., Aug. 29	Braddy, upland cotton, Sea Island pollen, 1 day old.	Oct. 9, 10 healthy bolls	10	Bolls average 2 inches long.
8	do	11 a. m., Aug. 28	11 a. m., Aug. 28; 10.30 a. m., Aug. 29.	Braddy, upland cotton, Sea Island pollen; fresh for first pollination, and 1 day old for second.	Oct. 9, 5 fell soon after pollination	5	Bolls average $1\frac{3}{4}$ inches long.
9	22 hours	12 m., Aug. 28	12 m., Aug. 28	Upland cotton, fresh Sea Island pollen	Oct. 9, 1 fell soon after pollination	9	Bolls average $1\frac{2}{3}$ inches long.
10	do	12 m., Aug. 29	10 a. m., Aug. 30	King upland cotton, King pollen, 1 day old	Oct. 9, 4 fell soon after pollination	6	Bolls average $1\frac{5}{8}$ inches long.
11	21 hours	1 p. m., Aug. 29	1 p. m., Aug. 29; 10.30 a. m., Aug. 30.	King upland cotton, King pollen, fresh for first application, and 1 day old for second.	Oct. 9, 10 small, mostly one-sided bolls.	10	Bolls average $1\frac{3}{8}$ inches long.
12	18 hours	3.30 p. m., Aug. 29	3.30 p. m., Aug. 29	King upland cotton, King pollen, fresh	Oct. 9, 3 fell soon after pollination	7	Bolls average $1\frac{3}{4}$ inches long.

EXPERIMENTS WITH ORANGE BLOSSOMS.

Only 15 experiments of 10 flowers each were performed with orange blossoms and the results were rendered somewhat unsatisfactory for two reasons: (1) The trees blossomed profusely, but set only a small quantity of fruit. Although no actual calculation was made, it was evident when the trees were examined, September 27, that had the total number of blossoms put forth in the spring produced as good a percentage of fruits as those experimented with, the trees would have yielded a much heavier crop. (2) Some portions of the trees produced a greater percentage of fruits than other portions. This was especially true of the older limbs, while the younger wood in the tops of the trees produced almost no fruit. Luckily, the records made when the experiments were begun designated the portions of the trees which the blossoms of each experiment occupied, thus explaining some apparent contradictions in the results. For example, experiment 9 (see Table III) should have given results similar to those of experiment 8, but unfortunately the blossoms of experiment 9 were located in a nonproductive portion of the tree and on the same limb as those of experiment 6, which resulted in no fruits, although it should have produced results similar to those of experiment 7 had its blossoms been located in as productive a portion of the tree.

This work was undertaken for the purpose of determining the effect of pollinating orange blossoms before the pistils became receptive. But an examination of blossom buds of different ages showed that the stigmas were receptive (if the presence of stigmatic fluid is a sure indication of receptiveness) in buds that would not have been fully open for nine days. Such a bud is shown by Pl. IV, fig. 4, and an emasculated bud of the same age is shown by fig. 5. The stigmatic fluid can not be easily distinguished in the photograph, but when the emasculated bud is held in the hand a drop of light-colored fluid is seen in the center of the stigma. The fluid is viscid and pollen adheres readily and abundantly to the very young stigmas. While these young buds did not possess the conditions of nonreceptiveness, they were so young that it was thought better to test the effect of pollinating them at this age rather than work with younger buds. The detailed results of the experiments can be obtained from Table III, which follows. The first nine experiments were performed with flower buds nine days before they would have been open, like the one represented in Pl. IV, fig. 4, and the other six with flowers four days older, like the one shown in fig. 3. The records suggest that better success results from work with the buds last mentioned, but it was demonstrated that fruits containing good, well-developed seeds will result from flowers pollinated nine days before they would naturally have received pollen. This was demonstrated with flowers of both seedy and seedless varieties. That the pollen so prematurely applied fecundated the ovules is proved by the fact that the resulting fruits of trees of seedless varieties contained good seed which germinated almost as well as seeds of fruits from the same tree the flowers of which were pollinated at the normal time. Indeed, the seeds resulting from these premature pollinations germinated to a greater per cent than seeds taken at random from fruits of a seedy orange.

One might expect the seedlings resulting from the pollination of such immature pistils to show feebleness, but such is not the case. They are now 6 inches tall and growing with as much vigor as any in the seed bed. They also show polyembryonic tendencies to as great a degree as the other seedlings, having from one to as many as four separate plants growing from a single seed.

Seven fruits resulting from prematurely pollinated flowers of a Melitensis navel were compared with six from the same tree which resulted from flowers emasculated nine days before opening and hand pollinated when the pistils were fully mature. The following are the averages:

Number of fruits.	Weight.	Diameter.	Number of seeds.	Seeds that germinated.
	Grams.	*Inches.*		*Per cent.*
7	183	2.91	5	73
6	242	3.10	8	87

The last four experiments were for the purpose of ascertaining whether seedy oranges are disposed to set fruit without pollination, as is customary with navel oranges. The 20 buds that were emasculated and bagged without pollination, as well as 20 that were emasculated and had their stigmas irritated by the application of magnesium sulphate, alike failed to set any fruits.

TABLE III.—*Experiments with orange blossoms.*

[Each experiment performed upon 10 similar flower buds.]

Experiment No.	Flowers would have been fully open in—	When emasculated.	When pollinated.	Number pollinated, others having fallen before pollination.	Remarks regarding pollen and pollination.	When examined, with remarks on condition.	Number of ripe fruits.	Remarks.
	Days.							
1	9	10 a. m., Feb. 25	10 a. m., Feb. 25	10	St. Michael, a seedy orange, pollen from same tree.	May 24, 5 fruits were growing	2	Seeds germinated well.
2	9	11.30 a. m., Feb. 25.	11.30 a. m., Feb. 25.	10	do.	May 24, 4 fruits were growing	2	Do.
3	9	2 p. m., Feb. 25	3 p. m., Mar. 6.	10	do.	May 24, 1 fruit was growing	0	
4	9	3 p. m., Feb. 25	do.	9	do.	do.	1	Seeds germinated well.
5	9	4 p. m., Feb. 25	4 p. m., Feb. 25	10	do.	May 24, 3 fruits were growing	3	Do.
6	9	10 a. m., Feb. 26	10 a. m., Feb. 26	10	Melitensis navel, St. Michael pollen	May 24, 2 fruits were growing	0	Limb bearing fruits died
7	9	11 a. m., Feb. 26	11 a. m., Feb. 26	10	do.	May 25, 3 fruits were growing	3	An average of 6 seeds per fruit; 4 planted, of which 3 germinated
8	9	11.30 a. m., Feb. 26.	4 p. m., Mar. 6	9	do.	May 25, 4 fruits were growing	4	An average of 5 seeds per fruit; 14 planted, all of which germinated
9	9	12.30 p. m., Feb. 26	do.	4	do.	May 25, 1 fruit was growing	1	Fruit contained 9 seeds; 9 planted, of which 7 germinated.
10	5	2 p. m., Mar. 2	2 p. m., Mar. 2	10	do.	May 25, 5 fruits were growing	5	An average of 4 seeds per fruit; 11 planted, of which 8 germinated.
11	5	3 p. m., Mar. 2	11 a. m., Mar. 7	10	do.	May 25, 3 fruits were growing	3	An average of 11 seeds per fruit; 16 planted, of which 13 germinated.
[a]12	5	11 a. m., Mar. 9	11 a. m., Mar. 9	10	Magnesium sulphate substituted for pollen.	May 25, all 10 found fallen	0	
[a]13	5	12 m., Mar. 9.	Never		Emasculated and bagged but never pollinated	do.	0	One became ¼ inch in diameter before falling.
[a]14	5	2 p. m., Mar. 9	2 p. m., Mar. 9	10	Magnesium sulphate substituted for pollen	do.	0	
[a]15	5	3 p. m., Mar. 9.	Never		Emasculated and bagged but never pollinated	do.	0	

[a] Experiments performed on tree of St. Michael, a seedy variety

EXPERIMENTS WITH TOMATO BLOSSOMS.

The work so far having been performed on flowers the pistils of which are naturally protected against a premature pollination, it was desired to try some flower the stigma of which is naturally exposed to pollination before it is receptive. It is to be supposed that flowers of the latter kind would not be killed by premature pollination as tobacco flowers are, for nature could not expose the young flowers to so imminent a danger of destruction without the plant becoming extinct or its manner of flowering changed by natural selection. The tomato blossom was found to present the conditions desired, for here the young stigma is exposed more or less for two or three days before it is receptive. (See Pl. IV, fig. 9.)

All of the work on tomato flowers was performed in the greenhouse, where there were grown eight different varieties. These vines grew very vigorously and were pruned and trained to vertical wires as the growth proceeded. Near the conclusion of the work the vines had reached a height of 8 or 9 feet and had such a mass of foliage that pruning was frequently necessary. The following notes of the 25 experiments performed with tomato blossoms are given in about the words written in the notebook as the work progressed. Some explanations and references to figures are inserted, and to avoid too many repetitions the wording has been changed in some places, and the description of the kind of blossom buds chosen is omitted except in experiments 1 and 5. Experiment 5 was performed on fully open flowers, as explained in the notes of that experiment. The kind of blossom buds chosen for all the other experiments is explained in the notes of experiment 1 and illustrated by Pl. IV, fig. 10. Fig. 11 of the same plate shows another of the same age which has been decapitated, and fig. 12 one of same age that has been emasculated. It will be noticed that decapitation prepares the flower for premature pollination just as well as emasculation, but this process of decapitation can not be used in hybridization work since there is danger of the flower becoming self-fertilized by the pollen remaining in the decapitated flower. The flowers were usually simply decapitated because decapitation was more quickly performed and perhaps of less injury to the flowers, although the experiments do not show any injurious effects from emasculation (decapitation employed in experiments 3 and 4, and emasculation in similar experiments 7 and 9). (See Table IV, p. 35.) However, in all experiments where it was necessary to remove all of the pollen the flowers were decapitated and then emasculated. In some cases one experiment is an exact repetition of another, while in other cases it is a repetition so far as practical results are concerned, but different in minor details, as, for example, in the variety of tomato from which the pollen was taken. In all these experiments, except experiment 5, the flowers and resulting fruits were kept covered with paper bags from the commencement of the work until the fruit was ripe.

Experiment 1.—March 1, 2 p. m. Ten young flowers of Lorillard variety were decapitated and pollinated at once with pollen from Atlantic Prize. Only young buds with a total length of one-half inch and with their sepal lobes still touching at their apexes were chosen. (Pl. IV, fig. 10, shows the size and appearance of the flower buds chosen for this and all following experiments except experiment 5.) The sepal lobes of these flowers were at this time one-eighth of an inch longer than the petals, stamens, and pistils, which were all of about equal length. In unmolested flowers similar to these it was observed that from this age on the pistils grew more rapidly than the other parts, and usually protruded one-sixteenth to one-eighth of an inch beyond the mature stamens (Pl. IV. fig. 8).

March 19. A few of these flowers were to-day examined, and it was found that some had fallen from the plants, while others were ready to fall at a touch.

April 3. These 10 flowers were all found loose at the base of the stem, and the flowers black, dried, and shriveled.

Results of the experiment: No fruits set.

Experiment 2.—March 1, 2.30 p. m. This experiment is in every particular an exact repetition of experiment 1, and the 10 flowers examined March 19 and April 3 showed results exactly the same as those of experiment 1.

Experiment 3.—(Compare with experiment 4 and contrast with 1 and 2.) March 1, 3 p. m. These 10 flowers on the same plants as flowers of experiments 1 and 2 were decapitated and then bagged to be pollinated with Atlantic Prize pollen when the pistils have become mature, as shown by other blossoms of the same age to-day, labeled to determine the rapidity of growth of unmolested flowers on these vines.

March 7. On this date the blossoms labeled to indicate the rapidity of growth showed reflex petals and receptive stigmas. An examination of the flowers of experiment 3 showed the decapitated sepals to be reflexed and the stigmas receptive as near as could be determined with a hand lens. These 10 flowers were accordingly pollinated with fresh pollen of Atlantic Prize.

April 3. These 10 flowers were to-day examined and 9 large green tomatoes found developing. One blossom had fallen without setting fruit, but 2 of the 9 large tomatoes were on this same stem, which might possibly be the cause of the falling of the other flower, as 2 tomatoes were enough for so small a stem to support. These fruits now range from 1 to 3 inches in diameter.

Results of the experiment: June 8. Nine large ripe tomatoes.

Experiment 4.—(Compare with experiment 3 and contrast with 1 and 2.) March 1, 4 p. m. This experiment is an exact repetition of experiment 3.

March 7. These 10 blossoms treated similarly to those of experiment 3.

April 3. Nine large green tomatoes found; 1 flower had fallen without setting fruit.

Results of the experiment: June 8. Nine large ripe tomatoes.

Experiment 5.—March 1. In order to ascertain the percentage of blossoms which would set fruit if pollinated in the manner usually employed in growing tomatoes under glass for commercial purposes, 10 fully opened blossoms were thus pollinated and labeled, but left unbagged. These 10 flowers were of the Lorillard variety and were pollinated in a hasty manner with pollen of Atlantic Prize by simply touching the protruding pistils with a watch glass into which pollen had been shaken from flowers of the latter variety.

April 3. These 10 flowers were examined and 8 large green tomatoes found developing, 1 flower having fallen without setting fruit, and another in the same fruit cluster was still attached and had a strong stem and large green calyx, but the ovary was exceedingly small and had not begun to develop. The last 2 mentioned are in the same fruit cluster with 2 of the 8 large green tomatoes, and this fact may be an explanation of their nondevelopment, since 2 large tomatoes are as many as so small a stem can well support.

Results of the experiment: Eight large well-formed tomatoes.

Experiment 6.—(Compare with experiments 1, 2, and 8 and contrast with 7.) March 11, 10 a. m. Ten flowers of the Lorillard variety were decapitated and the stamens entirely removed. The blossoms were then immediately pollinated with fresh pollen of Atlantic Prize.

April 3. Eight of these 10 flowers have fallen loose at the base of the stem, and the flowers are black and shriveled, while the other 2 are still attached by strong fleshy stems. The ovaries, though not enlarged, are plump and green, like tiny tomatoes.

June 10. Two small ripe tomatoes gathered and found to contain 8 seeds each.

Results of the experiment: Two small ripe tomatoes.

This experiment differs from experiments 1 and 2 only in that the flowers were emasculated rather than simply decapitated.

Experiment 7.—(Compare with experiments 3 and 4 and contrast with 6 and 8.) March 11, 11 a. m. Ten flowers of the same variety and in every particular similar to those of experiment 6 were decapitated and the stamens entirely removed and the flowers bagged to be pollinated when the pistils become receptive as indicated by other flowers of the same age to-day, labeled to show the rapidity of development.

March 16, 2 p. m. These 10 blossoms were pollinated with fresh pollen of Atlantic Prize.

April 3. The above 10 blossoms examined and 8 good green tomatoes found developing, 1 flower having fallen while the other was still attached by a strong fleshy stem, but the small green ovary was undeveloped.

Results of the experiment: Eight good tomatoes.

Experiment 8.—(Compare with experiments 1, 2, and 6 and contrast with 3, 4, 7, and 9.) March 11, 12 m. Ten young blossom buds on Suttons Best of All were decapitated and the stamens entirely removed, and the stigmas covered immediately with fresh pollen of Atlantic Prize.

April 3. These 10 flowers examined and all found fallen loose at the base of the stem and black and shriveled.

Results of the experiment: No fruits.

Experiment 9.—(Contrast with experiment 8.) March 11, 12.30 p. m. Ten blossom buds of the same variety, and in all respects similar to those of experiment 8, were similarly treated in regard to emasculation and decapitation, but were bagged without pollination. These 10 flowers are to be pollinated with fresh pollen of Atlantic Prize when the pistils become receptive as indicated by other labeled blossoms of the same age.

March 16, 2.30 p. m. These 10 flowers were pollinated with fresh pollen of Atlantic Prize, the decapitated petal lobes being reflexed, showing that the flowers would have been fully opened had they been left unmolested.

April 3. Ten good large tomatoes found developing.

Results of the experiment: Ten large, well-formed tomatoes.

It will be seen by contrasting experiments 8 and 9 that they differ only in the time of the application of the pollen to the pistils. In experiment 8 the pollen was applied to the immature pistils, while in experiment 9 it was applied to mature pistils.

It being noticed that several of the varieties in the greenhouse were setting a few fruits, although there had been no opportunity for the blossoms to become pollinated, the question naturally arose as to whether tomatoes will set fruit if secluded from wind and insects, and experiments 10 and 11 were undertaken in order to throw some light on this point.

Experiment 10.—March 16, 3 p. m. This experiment consisted simply in bagging 10 young blossom buds on the variety Livingston's Beauty. The blossom buds were unopened and in the same condition as those described in the preceding experiments. In bagging, two blossoms were placed in each bag.

May 9. An examination showed two small fruits, the other flowers having fallen without setting fruits.

Results of the experiment: Two small fruits.

As it was not known at this time that the tomato sometimes sets fruit without the flowers having received pollen, no further attention was given to these small fruits. As shown by later work, however, it is possible that these fruits set without receiving any pollen and, of course, if such was the case they were without seeds. No definite conclusions can be drawn from this experiment, since the two fruits may have set without their flowers having been pollinated at all, or by means of self-fertilization, or by one flower becoming pollinated with pollen from the other flower in the same bag.

Experiment 11.—This experiment was performed at the same time and is a repetition of experiment 10, except that it is on the variety Atlantic Prize. The experiment resulted in the falling of nine of the blossoms without setting fruit, while the tenth remained green, with a thick green stem and calyx, but failed to develop a fruit.

Results of the experiment: No fruits.

The results thus far having definitely shown that good results could not be obtained by the immediate pollination of the immature pistils, the question arose as to the cause of the failure—whether the pistils were injured by the premature application of pollen, or whether the pollen had lost its vitality before the pistils became mature. In order to test this point some further experiments were undertaken, beginning with experiment 12. If the pistils were uninjured by the application of pollen at the time the flowers were decapitated, it is evident that another pollination when the pistils became receptive would give as good results as in those experiments in which the flowers received but the one pollination—that at the time when the pistils were receptive.

Experiment 12.—(Compare with experiment 14 and contrast with 13.) March 19, 10 a. m. Ten flowers of Sutton's Best of All were decapitated and at once pollinated with fresh pollen of Lorillard. Other similar flower buds were labeled at the same time in order to show the time when the pistils became receptive.

March 27, 9 a. m. These 10 flowers were again pollinated with fresh pollen of Lorillard. The decapitated calyx lobes were reflexed and the pollen of the previous pollination could still be seen upon the stigmas.

April 3. An examination of several of these flowers showed that about half had fallen, while the others seemed to be setting fruit.

May 9. Seven fine fruits were found growing.

Results of the experiment: Seven good fruits.

This experiment indicates that the immature pistils were uninjured by the first pollination, and the failure to obtain fruits in the preceding experiments in which the pistils were prematurely pollinated must be accounted for in some other way, perhaps by the loss of vitality in the pollen.

Experiment 13.—(Compare with experiments 3, 4, and 7 and contrast with 6, 12, and 14.) March 19, 10.30 a. m. Ten flower buds on the same variety, and in all respects similar to those of experiment 12, were decapitated and bagged without pollination, to be pollinated with pollen of Lorillard when the stigmas become receptive.

March 27, 9.30 a. m. These 10 flowers were pollinated with fresh pollen of Lorillard. The stigmas appeared receptive when viewed through a hand lens and the pollen adhered readily to them.

April 3. An examination of a few of these flowers showed that some small tomatoes were forming, but their development was not sufficiently advanced to determine results.

May 9. Six good, large fruits were found growing.

Results of the experiment: Six good, large fruits.

Experiment 14.—(Compare with experiment 12 and contrast with 13.) March 19, 12 m. This experiment is a repetition of experiment 12, except that the pollen used was from different flowers of the same variety instead of from those of the Lorillard variety.

March 27, 11 a. m. The flowers were again pollinated with fresh pollen from different flowers of the the same variety. One of the 10 was found fallen and another, which was of a yellowish color, about ready to fall.

Results of the experiment: May 9, seven good fruits.

Experiment 15 was planned to be a repetition of experiments 7 and 9 and to contrast with experiment 14, in order to determine whether the flowers are injured by premature pollination. However, when these flowers were receptive and were being pollinated, it was discovered that some of them had become injured in some way after being emasculated, while others could not be found, thus making it necessary to give up experiment 15.

A comparison of experiment 14 with experiments 7 and 9 suggests that early pollination has no detrimental effect upon the pistils, but as experiments 7 and 9 were performed at a different time and pollen from a different variety was used, the conditions are not similar enough to warrant such a conclusion. In order to get more conclusive proof that premature pollination does not injure the young pistils and prevent them from performing their functions when they become mature, experiments 16 and 17 were performed.

Experiment 16.—(Compare with experiments 12 and 14 and contrast with 13.) April 3, 2 p. m. Ten young blossom buds of the Lorillard variety were decapitated and immediately pollinated with fresh pollen of Livingston Potato Leaf. When the pistils have become mature, as indicated by other flowers of the same age to-day, labeled to show the rapidity of development, these 10 flowers are to be again pollinated with fresh pollen of Livingston Potato Leaf.

April 11, 9 a. m. The 10 blossoms were again pollinated with fresh pollen of Livingston Potato Leaf. The flowers were fresh with decapitated calyx and corolla lobes reflexed and the pistils apparently receptive, although still bearing the pollen of the first pollination.

May 9. Nine good, large fruits were found developing.

Results of the experiment: Nine good, large fruits.

Experiment 17.—(Compare with experiments 7, 9, and 13 and contrast with 12, 14, and 16.) April 3, 3 p. m. Ten young flower buds on the same plants and in all respects similar to those of experiment 16 were decapitated and bagged without being pollinated, but are to be pollinated with fresh pollen of Livingston Potato Leaf when the pistils become mature.

April 11, 10 a. m. These 10 flowers were pollinated with fresh pollen of Livingston Potato Leaf. The flowers were fresh with decapitated calyx and corolla lobes reflexed and the pistils apparently receptive. No difference in appearance was noticed between these flowers and those of experiment 16.

May 9. Ten good, healthy green fruits found growing.

Results of the experiment: Ten good fruits.

On the same day, and of course before the results of experiments 16 and 17 were known, experiments 18 and 19 were commenced. It was thought likely that experiment 17 would give so much better results than experiment 16 that it would be necessary to explain in what way the first pollination in experiment 16 and similar experiments had injured the pistils. If the injury was due, as in the case of tobacco flowers, to the growth of pollen tubes down the immature pistils, substances other than pollen would not act in that way; while if the injury should prove to be due simply to the coating on the stigmas, some other substance might have the same injurious effect. Since quite a number of ripe tomatoes had been examined and found to contain no seeds, it was thought that this tendency to set fruit without pollination might be increased by the irritation of the stigmas by the application of some substance other than pollen. Consequently in some of the following experiments magnesium sulphate was employed in the place of pollen.

Experiment 18.—April 3, 4 p. m. This experiment is similar to experiment 16 in all respects except that magnesium sulphate was used in place of fresh pollen to coat over the surface of the stigmas immediately after decapitation. Ten flower buds of the same variety and in all respects similar to those of experiment 17 were decapitated and the pistils dipped at once into powdered magnesium sulphate, and the flowers bagged.

April 11, 10.30 a. m. The 10 flowers were pollinated with fresh pollen of Livingston Potato Leaf. The darkened appearance of the stigmas of the flowers when pollinated indicated some injury due to the magnesium sulphate.

May 9. Three good fruits found developing. Two of the blossoms were still fresh and green, with large stems and large green calyx lobes, but had failed to set fruit, while the rest of the 10 flowers had fallen without setting fruit.

Results of the experiment: Three good fruits.

Experiment 19.—April 3, 4.30 p. m. Ten blossom buds of the same variety and in all respects similar to those of experiment 18 were decapitated, and the pistils dipped at once into powdered magnesium sulphate and the flowers bagged.

April 11. The 10 flowers were examined and found in the same condition as those of experiment 18 at this time.

May 9. Two of the blossoms were found still fresh and green with large stems and large, green calyx lobes, but they had failed to set fruit, while the other 8 blossoms had fallen without setting fruit.

Results of the experiment: No fruits.

Experiment 20.—April 3, 5 p. m. Five blossom buds of Lorillard and 5 of Sutton's Best of All were emasculated and bagged.

April 11, 11.30 a. m. The stigmas of these blossoms were coated with magnesium sulphate. The 10 blossoms were in good, fresh condition, with reflexed calyx and corolla lobes and protruding pistils showing fresh receptive stigmas.

May 9. One small green tomato found developing. Three of the flowers were found with large green stems and calyxes, but failed to set fruit. The other 6 were found fallen without having set fruit.

Results of the experiment: One ripe seedless tomato 1¼ inches in diameter.

The results of this experiment gave additional proof that the seedless tomatoes previously found growing in the greenhouse had resulted from flowers that had never been pollinated. Experiment 22 was an exact repetition of experiment 20, but resulted in the falling of all the flowers without setting fruit.

It having been shown by experiments 12, 14, and 16 that the failure to obtain fruits in experiments 1, 2, and 8 was not caused by the presence of the pollen on the immature pistils, it would seem to be due to loss of vitality of the pollen before the pistils became receptive. To test this point experiments 21 and 22 were performed.

Experiment 21.—(Contrast with experiment 17.) May 9, 4 p. m. Ten blossom buds of Sutton's Best of All were emasculated and bagged to be pollinated when the pistils become mature with pollen of Lorillard collected to-day at 5.30 p. m.

May 14, 1.30 p. m. These 10 flowers were to-day pollinated with pollen of Lorillard collected May 9 and placed in a watch-glass closely covered and kept in the greenhouse near the tomato vines in order that it might be exposed to the same conditions of temperature, etc., as the pollen placed upon the immature pistils in the previous experiments. The decapitated sepals and petals of these flowers were reflexed and the pistils had a good healthy appearance when pollinated.

June 6. Eight of the flowers were found detached below the ovaries, which had not enlarged after pollination. One flower set a fruit which attained a size of 2⅛ inches in diameter and contained 22 seeds. The other flower could not be found.

Results of the experiment: One fruit.

The fact that experiments 6 and 21 produced 3 small fruits containing but few seeds shows that the pollen had not lost quite all its vitality during the five days from the time it was collected till the pistils on which it was placed became mature.

Experiment 23.—(Contrast with experiment 16.) May 9. Ten blossoms of Sutton's Best of All were emasculated and at once pollinated with fresh pollen of Lorillard. Some of the pollen was reserved for a second application to these flowers when the pistils become mature.

May 14, 2 p. m. The 10 flowers were pollinated with pollen of Lorillard collected May 9 and kept in the greenhouse since that time. When pollinated the second time all parts of the flowers were in a fresh, healthy condition, the stigmas showing white from the application of pollen May 9.

June 9. All of the flowers were found detached below their ovaries, which had not enlarged since pollination.

Results of the experiment: No fruits.

Experiment 24.—(Compare with experiment 25 and contrast with 20 and 22.) May 14, 3 p. m. Ten young blossom buds of Sutton's Best of All were emasculated and bagged. These blossoms are never to be pollinated.

June 6. All of the 10 blossoms were found fallen below the ovaries, which had not enlarged.

Results of the experiment: No fruits.

Experiment 25.—This experiment is an exact repetition of experiment 24, except that it was performed on the Lorillard variety.

Results of the experiment: No fruits.

While the work with tomato blossoms indicates no injurious effects from the growth of pollen tubes down the immature pistils, it proves the fallacy of the commonly accepted opinion that when pollen is placed on young stigmas it will remain there and fertilize the flower when the pistils finally become receptive. It is also shown that tomato blossoms will sometimes, though seldom, set fruit without pollination, and the number of fine, large, seedless, and almost seedless tomatoes that grew on the vines under glass without any attention having been paid to the pollination of the flowers shows that the absence or scarcity of pollen on the stigmas will sometimes result in the production of better, firmer, and less seedy tomatoes than those which result from a natural pollination. An examination of tomato flowers growing out of doors showed that the stigmas of the fully opened flowers were completely covered with pollen, and tomatoes on the same vines consequently were found to contain the usual large number of seeds. One of these of average size—3 inches in diameter and 2½ inches thick—and not unusually seedy, contained 308 seeds; while some of the same variety and of the same size that were grown under glass contain no seeds, and others but a dozen or two. The fine tomatoes above mentioned, some of which contained no seeds and the others but few, grew on large thrifty vines which bore but a few fruits each, owing to the failure of their flowers to receive pollen. Had these vines borne at the time a crop of tomatoes containing the normal number of seeds it is likely that the ones without seeds, as well as those with but few seeds, would not have reached the size they did. As it was, however, the tomatoes without seeds reached a diameter of 2½ and 3 inches and were firm and of excellent quality. If some of the fruits on a vine have set as a result of a liberal pollination, while others have set as a result of a slight pollination, or even without pollination, it is natural to suppose that the nourishment of the vine would go largely to the fruits containing an abundance of seeds, while seedless ones would be dwarfed. That such is the case has been shown by the experiments of Munson[a] and Bailey[b]. The same effect is shown by Pl. IV, fig. 16, which is a photograph of a cluster of Wilmot Hamburg grapes grown under glass. The small berries are ripe and have the same color and flavor as the large ones, but are entirely seedless and doubtless set without pollination. The large berries contain several seeds each and likely resulted from blossoms that were naturally pollinated, perhaps by insects that found their way into the hothouse.

When there is competition on the same plant between seedless and seeded fruits the latter receive the most nourishment and become the larger, but by careful breeding it is not unlikely that a tomato can be obtained that will produce seedless fruits as large as the seeded fruits we now have. The large size of seedless bananas and pineapples indicates that this is possible. But since the most convenient way of propagating the tomato at present is by means of seeds, it is not a tomato entirely seedless that is wanted, but a large, well-shaped, firm tomato with but few seeds.

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[a] Ann. Rep. Maine Exp. Station, 1892, p. 50.

[b] Rep. Cornell Univ. Exp. Station, 1891, p. 53.

While a comparison of the experiments in which the flowers were emasculated and never pollinated with the experiments in which the flowers were emasculated and magnesium sulphate substituted for pollen would seem to suggest that the irritation of the receptive stigmas may stimulate the setting of fruits, yet fruits set so rarely without flowers having received pollen that a very large number of flowers would have to be tested in order to determine whether the mere irritation of the stigmas by the application of substances other than pollen has any tendency to cause fruits to set.

TABLE IV.—*Experiments with tomato blossoms.*

[Each experiment performed upon 10 similar flower buds.]

Experiment number.	Pistils would have been receptive in—	When emasculated or decapitated.	When pollinated.	Remarks regarding pollen and pollination.	When examined, with remarks on condition.	Number of ripe fruits.	Remarks.
	Days.	1901.					
1	6	2 p.m., Mar. 1	2 p.m., Mar. 1	Fresh Atlantic prize pollen	Mar. 19, some fallen, others falling	0	Apr. 3, all fallen and dry
2	6	2.30 p.m., Mar. 1	2.30 p.m., Mar. 1	do	do	0	Do.
3	6	3 p.m., Mar. 1	Mar. 7	do	Mar. 19, some green tomatoes noticed.	9	June 8, 9 large ripe tomatoes
4	6	4 p.m., Mar. 1	do	do	Apr. 3, 9 large green tomatoes	9	June 8, ripe and gathered
5	Receptive.	Never	Mar. 1	do	Apr. 3, 8 large green tomatoes	8	Pollinated rapidly and not bagged.
6	5	10 a.m., Mar. 11	10 a.m., Mar. 11	do	Apr. 3, 8 found fallen, 2 very small	2	June 10, fruits very small, 8 seeds each
7	5	11 a.m., Mar. 11	2 p.m., Mar. 16	do	Apr. 3, 8 green tomatoes	8	
8	5	12 m., Mar. 11	12 m., Mar. 11	do	Apr. 3, all found fallen	0	
9	5	12.30 p.m., Mar. 11	2.30 p.m., Mar. 16	do	Apr. 3, 10 good tomatoes growing	10	
10	5	Never	Never	Bagged March 16 to test self fertilization	May 9, 2 small fruits	2	Two flowers to each bag.
11	5	do	do	do	May 9, 9 found fallen	0	One large green calyx.
12	8	10 a.m., Mar. 19	10 a.m., Mar. 19, 9 a.m., Mar. 27.	Fresh Lorillard pollen each time	May 9, 7 good fruits growing	7	
13	8	10.30 a.m., Mar. 19.	9.30 a.m., Mar. 27.	Fresh Lorillard pollen	May 9, 6 good fruits growing	6	
14	8	12 m., Mar. 19	12 m., Mar. 19, 11 a.m., Mar. 27.	Fresh Sutton's Best of All pollen each time	May 9, 7 good fruits growing	7	
15	8	12.30 p.m., Mar. 19.		Some lost and some had become injured, and so could not be pollinated.			
16	8	2 p.m., Apr. 3	2 p.m., Apr. 3; 9 a.m., Apr. 11.	Fresh Potato Leaf pollen each time	May 9, 9 good large fruits growing	9	
17	8	3 p.m., Apr. 3	10 a.m., Apr. 11	Fresh Potato Leaf pollen	May 9, 10 good large fruits growing	10	
18	8	4 p.m., Apr. 3	4 p.m., Apr. 3, 10.30 a.m., Apr. 11	Powdered magnesium sulphate used Apr. 3, and fresh Potato Leaf pollen Apr. 11	May 9, 3 good green fruits growing	3	Magnesium sulphate injured young pistils.
19	8	4.30 p.m., Apr. 3	4.30 p.m., Apr. 3	Powdered magnesium sulphate	May 9, 8 fallen, 2 with green calyxes	0	
20	8	5 p.m., Apr. 3	11.30 a.m., Apr. 11	do	May 9, 1 fruit, 6 fallen, and 3 with green calyxes.	1	Fruit ripened and was seedless.
21	5	4 p.m., May 9	1.30 p.m., May 14	Lorillard pollen 5 days old	June 6, 1 fruit growing	1	Small, contained 22 seeds.
22	5	5 p.m., May 9	12 m., May 14	Magnesium sulphate substituted for pollen	June 6, all fallen	0	
23	5	May 9	May 9, 2 p.m.; May 14.	Fresh Lorillard pollen used May 9, and Lorillard pollen 5 days old May 14.	June 6, all found fallen	0	
24	5	3 p.m., May 14	Never	Emasculated and bagged; never pollinated	do	0	
25	5	4 p.m., May 14	do	do	do	0	

CONCLUSION.

The following summary of results obtained with tobacco, cotton, orange, and tomato flowers contrasts the effects of immature and mature pollinations. The orange work does not lend itself well to this comparison, for it is unsafe to say that the young pistils were not receptive when pollinated:

Prematurely pollinated.	Resulting number of fruits.	Maturely pollinated.	Resulting number of fruits.
80 tobacco blossoms	3	40 tobacco blossoms	38
60 cotton blossoms	32	40 cotton blossoms	33
60 orange blossoms, 6 experiments	15	42 orange blossoms, 5 experiments	9
40 tomato blossoms	2	70 tomato blossoms	60

To determine whether cotton bolls would set without pollination, or by the substitution of other substances for pollen was not attempted, but a summary of this work with the other three flowers is as follows:

Emasculated and stigmas covered with substances other than pollen.	Resulting number of fruits.	Emasculated and bagged without pollination.	Resulting number of fruits.
60 tobacco blossoms	14	20 tobacco blossoms	2
20 orange blossoms, seedy variety	0	20 orange blossoms, seedy variety	0
30 tomato blossoms	1	20 tomato blossoms	0

Much has been said in apology for the lack of success of attempted hand pollinations, advocating perseverance, and regarding it as a great accomplishment if even 5 or 10 per cent of the flowers set seed. But this is erroneous, for if one is working with plants that naturally cross readily and is not trying to make a cross between two very different plants, the results should certainly not be considered successful unless a greater percentage of fruits is obtained than set on the same plants naturally without artificial pollination. We increase the production of fruits by giving attention to plants in other respects, and likewise by a careful study of the flowers upon which we work we can obtain greater percentages of fruits by hand pollination, including emasculation, than set naturally. After the behavior of tobacco, cotton, and tomato flowers was quite well understood, and they were correctly operated upon for obtaining the best results, the following percentages of fruit were obtained:

Flowers hand pollinated.	Fruits obtained.	Per cent.
40 tobacco (experiments 7, 16, 20, and 36)	38	95
40 cotton (experiments 2, 4, 7, and 10)	33	82
60 tomato (experiments 3, 4, 7, 9, 13, and 17)	52	86

The writer is fully convinced that persons having hand-pollinations to make with unfamiliar flowers, or with flowers with which their previous work has been unsatisfactory, will find it profitable to make some small experiments in order to determine the method to which the flowers respond with a large percentage of fruits. These experiments can usually be made with the proper pollen and flowers so that the fruits will contain seed of the desired kind.

While attention is constantly being called to the many adaptations of flowers for accomplishing various purposes, such as cross-fertilization, it might be well to attempt to discover if some adaptations for preventing premature pollination have not been brought about by natural selection. That many flowers are admirably formed to successfully prevent premature pollination is certain, but that such devices have been brought about for this purpose will perhaps never be certain. Proterogenous flowers that open or unfurl in blooming usually do so when their pistils have reached a receptive condition. The pistils of such flowers are perfectly protected from pollen from all sources until they are receptive. Pl. IV, fig. 6, shows a fully open, receptive begonia flower, while fig. 7 shows the two calyx lobes securely closed over the young pistil of a similar but younger flower. Proterandrous flowers open while the pistils are immature, but even here modifications are met with which insure the pistils against premature pollination. The stigmatic surfaces are often folded together, thus preventing pollination even though the immature pistil be exposed. Fig. 1 shows the interesting behavior of flowers of *Sabbatia angularis*; *a* shows the condition of the flower when the anthers discharge their pollen, two petals and one stamen having been cut away in order to show the young pistil, which at this stage has no stigmatic surface exposed. Instead of growing straight out and thus coming in contact with the drying anthers, the pistil invariably grows out to one side, passing between the filaments of the stamens. The stamens at this stage begin to bend to the side of the flower opposite the one occupied

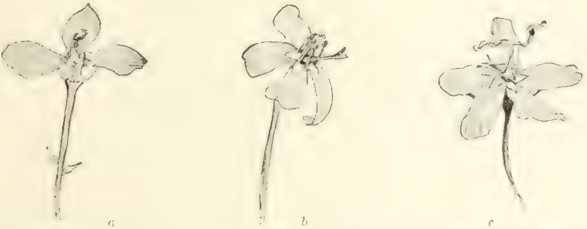

FIG. 1.—Flowers of *Sabbatia angularis:* (*a*) Appearance while pollen is being shed; (*b*) Stigma and anthers avoiding each other; (*c*) Receptive stigma and deciduous anthers. (From drawings by E. E. Lower.)

by the pistil, as shown by *b*, fig. 1, and by the time the pistil straightens and exposes its stigmatic surfaces the stamens have assumed a recumbent position and have drooped their anthers, as shown by *c*. The modifications of this proterandrous flower successfully prevent self-fertilization and premature pollination without interfering with the proper shedding of pollen.

The many adaptations of flowers to insure pollination at a certain time is interesting and suggestive of the importance to be attached to the time for applying pollen when hand-pollinating. Movements on the part of stamens so as to bring the pollen to the pistil at a certain stage in the growth of the flower, and especially movements on the parts of the pistils themselves which bring the stigmas into contact with the stamens, are admirable adaptations. With some flowers, such as those of corn, the pistils have no definite length, but continue to grow in search of pollen, as it were. If pollinated upon protruding from the husks, corn silks perform their functions, turn brown, and become dry without making a growth of more than 2 or 3 inches beyond the end of the ear, but if kept secluded from pollen they will continue to grow for a week and will attain a length greater by 14 or more inches than would otherwise have been the case.

During the work with the various flowers herein mentioned nothing has been more noticeable than the individuality possessed by flowers of different forms. It seems impossible to say that the flowers of one plant will respond in a given manner because those of another plant so respond. From these experiments it is evident that flowers of different genera of the same order, as the tomato and tobacco, respond differently to the effects of premature pollination, while the flowers of *Datura tatula*, of the same order, suffer as do those of tobacco, but do not fall.

Two of the five kinds of flowers experimented with mature their pistils before their stamens and were uninjured by premature pollination, while the three that mature their anthers and stigmas at the same time were injured. It is perhaps accidental that such is the case with these five flowers, but it is to be hoped that future work will reveal some means of distinguishing flowers that will, from those that will not produce seed when prematurely pollinated. For the plant breeder it is quite important to know with what flowers one can apply the pollen at the time of emasculation and thus avoid the extra labor of removing the bags, pollinating, and again bagging the flowers when the pistils have become receptive.

It is apparent that several of the phenomena suggested by the results of these experiments have not been sufficiently proven. However, concerning the following points the writer feels no doubt:

That the application of good tobacco pollen to immature tobacco pistils causes the flowers so treated to fall from the plant because of the growth of pollen tubes into their ovaries;

That tobacco and tomato plants sometimes set and ripen fruits without the flowers having received any pollen, and that such fruits contain no germinative seeds:

That but few fruits will be obtained by the pollination of immature cotton and tomato pistils, but that good percentages may be obtained if the pollination is performed when the pistils are receptive.

The lesson taught by these experiments is that some flowers can not be successfully pollinated when the work of emasculation is performed, while others can, and that no arbitrary mode of procedure can be given for all flowers. A study of the behavior of each kind of flower will reveal its peculiarities and its requirements, and, understanding these, hand-pollinations should be highly successful.

PLATES.

PLATE I.

Figs. 1 and 2.—The upper portions of the same two main stems of a growing tobacco plant.

The photograph for fig. 1 was taken 3 p. m., June 21, 1900, immediately after the numbered flowers had been emasculated and pollinated, and the lettered flowers had been emasculated but not pollinated.

The photograph for fig. 2 was taken 3 p. m., June 23, or just forty-eight hours later than that for fig. 1, and shows that premature pollination has caused flowers 1, 2, and 6 to fall, while the more mature flowers, 3, 4, and 5, show no injury from pollination, but, on the contrary, were fecundated and set seed pods, as shown in Pl. II, fig. 1.

Flowers 1 and 2, fig. 1, would not have been receptive for two days and flower 6 for three days, and according to results of experiments they were expected to fall about thirty-six hours after pollination.

Flowers 3, 4, and 5 would have been fully open and receptive in one day and were expected to give a fair percentage of seed pods.

If early emasculation had caused the falling, flowers *c* and *d* should have fallen also.

The advancement of an unmolested flower may be studied by observing the small bud on the right in fig. 1 and its growth as shown by fig. 2 and the forming seed pod in Pl. II, fig. 1.

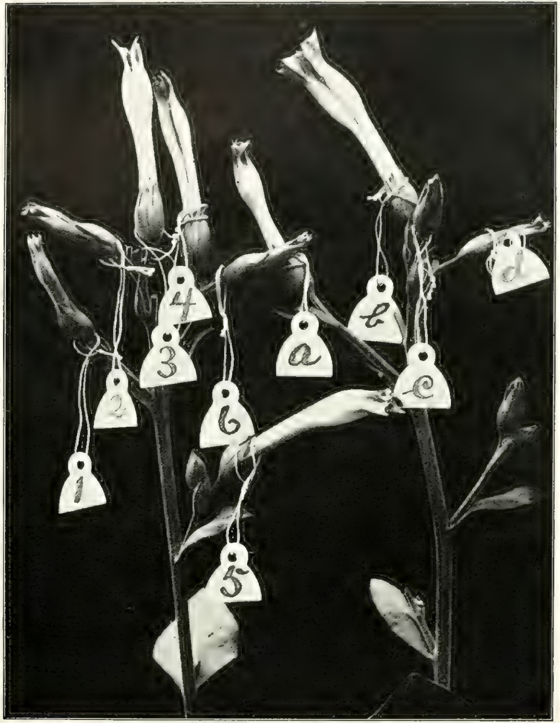
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FIG. 1.—GROWING TOBACCO BLOSSOMS AT TIME OF EMASCULATION (THREE-FOURTHS NATURAL SIZE).

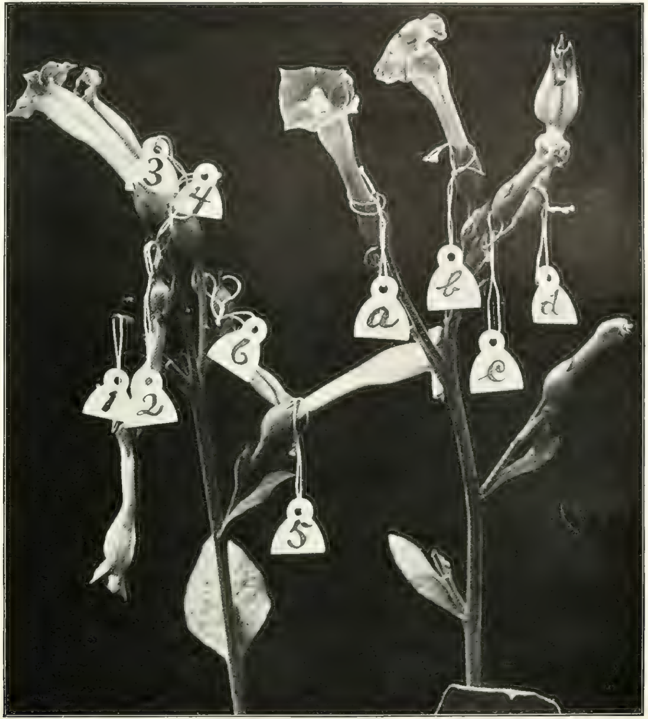
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FIG. 2.—SAME BLOSSOMS AS IN FIG. 1, TWO DAYS LATER (THREE-FOURTHS NATURAL SIZE).

PLATE II.

Fig. 1.—The same portion of the same plant shown in Pl. I, photographed eight days later than fig. 1. The emasculated flowers *b* and *c* have not yet fallen, while the seed pods resulting from flowers 3 and 4 have attained considerable size.

Figs. 2, 3, 4, and 5.—Photomicrographs of pollen grains and pollen tubes in sections of flowers that fell because of premature pollination.

Fig. 2.—Section of a tobacco stigma showing pollen grains which have germinated and sent their tubes into the style. Flower from which this section was made was emasculated and pollinated May 25, 11 a. m., two days before it would have opened. May 27, 11 a. m., it was found fallen and was fixed for microscopic study. (× 250 diameters.)

Fig. 3.—Pollen tubes farther down the style. Figs. 2 and 3 are sections of the same pistils. (× 315 diameters.)

Fig. 4.—Mass of pollen tubes near the point where they enter the ovary from the style. The flower from which this section was made was one of experiment 21 (see Table I). (× 160 diameters.)

Fig. 5.—Pollen tubes in ovary on the placenta at attachment of ovules. Figs. 4 and 5 are from different sections of the same ovary. (× 75 diameters.)

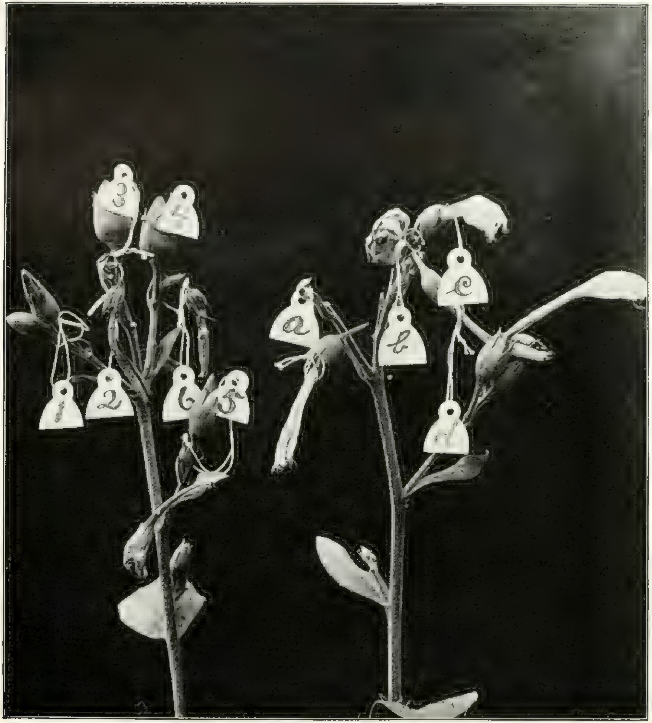


FIG. 1.—SAME BLOSSOMS AS IN PL. I, FIG. 1, EIGHT DAYS LATER (THREE-FOURTHS NATURAL SIZE).

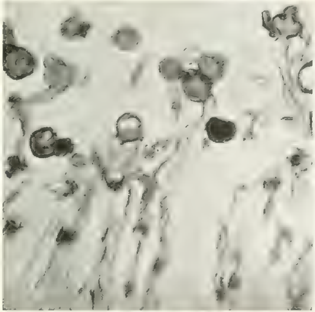


Fig. 2. (× 250.)

Fig. 3. (× 315.)

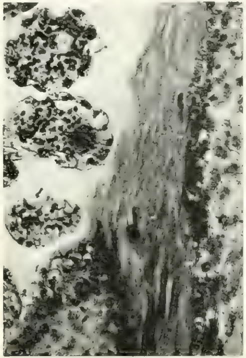


Fig. 4. (× 160.)

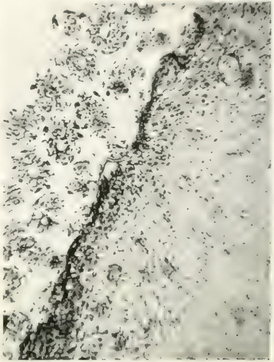


Fig. 5. (× 75.)

PHOTOMICROGRAPHS OF TOBACCO POLLEN TUBES.

PLATE III.

Flowers 1 and 2 were pollinated March 3, two days before they would have been fully open, No. 2 being emasculated. Thirty-nine hours after being pollinated these flowers had fallen. No. 1 shows the anthers just opening.

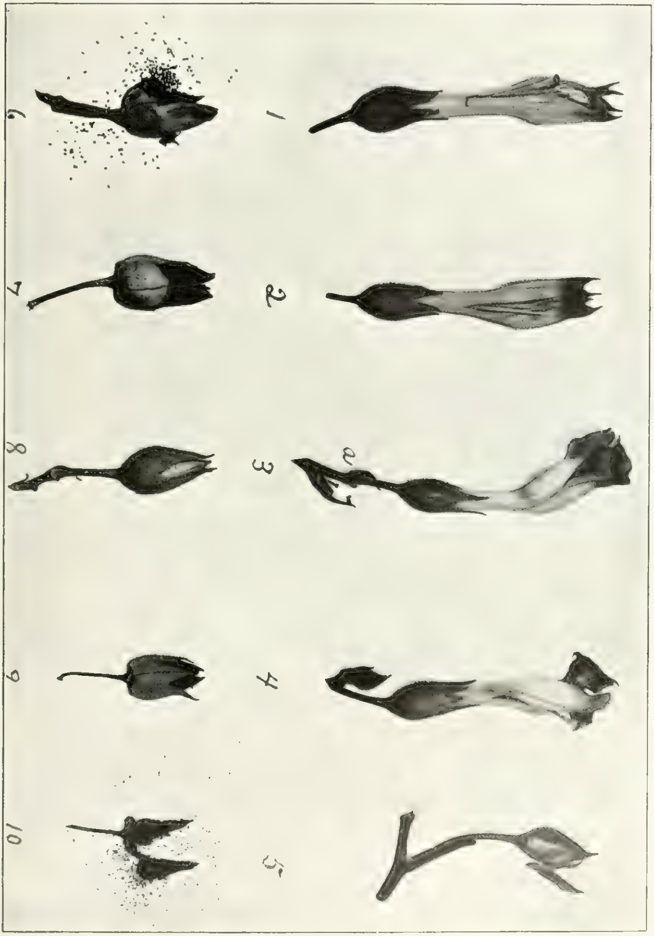
Flowers 3, 4, and 5 were emasculated February 27. No. 3 was not pollinated, while Nos. 4 and 5 had their stigmas coated over with corn flour. March 5, Nos. 3 and 4 were still fresh, while the corolla of No. 5 had fallen and the ovary begun to enlarge.

No. 6.—A ripe pod torn open to show normal seeds for comparison with chaffy seeds that sometimes form in pods the flowers of which were not pollinated or had other substances substituted for pollen as in Nos. 9 and 10.

No. 7.—A normal ripe seed pod.

No. 8.—A green pod formed from a flower which was emasculated and had its stigma coated with air-slacked lime.

Nos. 9 and 10.—Ripe pods of experiment 45 in which the stigmas were coated with corn flour. After being photographed pod 9 was examined and found to contain only light, chaffy seed like those shown in the opened pod 10.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TOBACCO BLOSSOMS AND SEED PODS (NATURAL SIZE).

PLATE IV.

Fig. 1.—An orange forty-three days after pollen was applied to the stigma.

Figs. 2, 3, 4, and 5.—Flowers of a Melitensis navel orange, showing different stages in their development.

Fig. 2.—Fully open flower, showing abortive anthers characteristic of seedless varieties. Two petals were removed for convenience in photographing.

Fig. 3.—Flower five days younger than No. 2, and the kind used in experiments 10 to 15, inclusive. The stigma at this age bears a large drop of stigmatic fluid.

Fig. 4.—Flower nine days younger than No. 2, and the kind used in experiments 1 to 9, inclusive.

Fig. 5.—Flower same age as No. 4, showing appearance after emasculation. The stigmas at this early age show stigmatic fluid.

Fig. 6.—A fully opened pistillate begonia flower, showing receptive pistil.

Fig. 7.—A pistillate begonia flower slightly younger than No. 6 and showing the calyx lobes tightly closed, perhaps to protect the young pistil from premature pollination.

Fig. 8.—A fully opened tomato blossom of the Lorillard variety, showing receptive stigma extending a short distance beyond the surrounding stamens, which are about to open and shed their pollen.

Fig. 9.—A blossom of Lorillard three days younger than No. 8, showing the stigma already exposed.

Fig. 10.—A blossom of Lorillard that would have been fully open like No. 8 in about six days. This shows the kind of buds selected in all the tomato experiments to determine the effects of premature pollination.

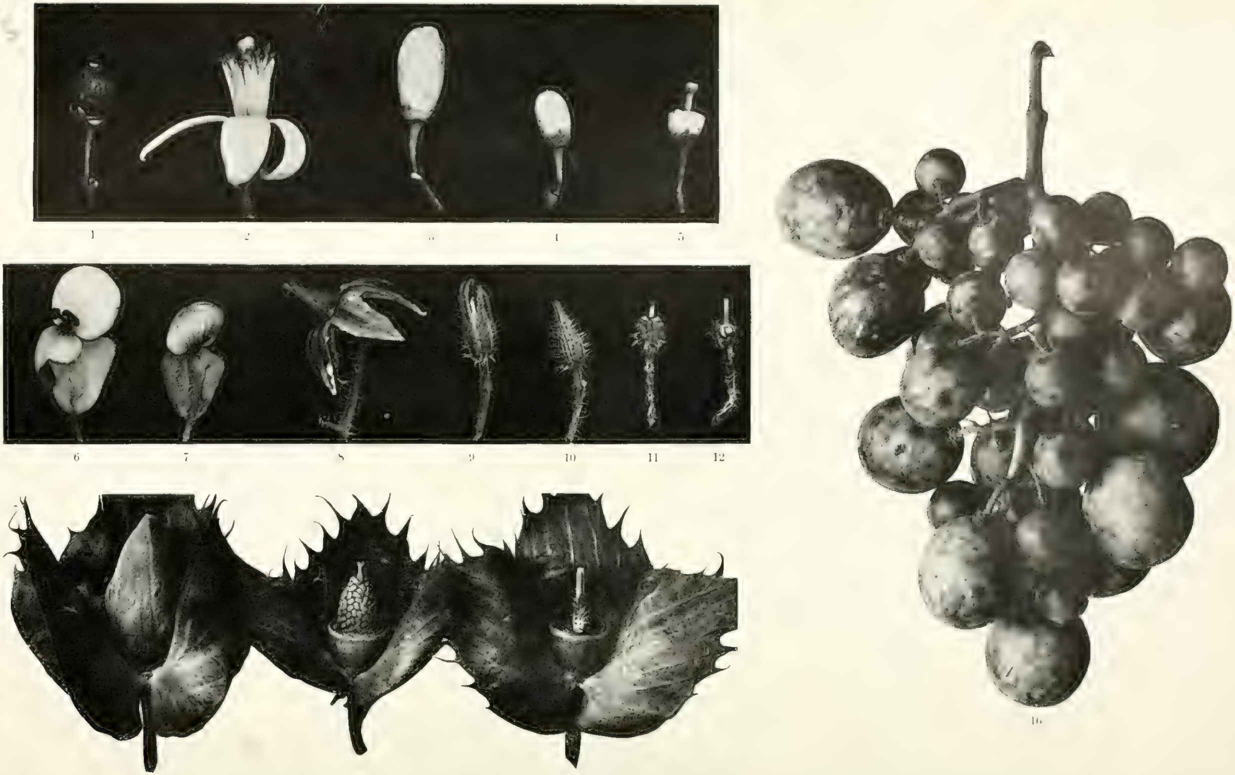
Fig. 11.—A bud similar to No. 10, which has been decapitated to permit of a premature pollination of the pistil.

Fig. 12.—A blossom bud similar to No. 10, which has had its stamens entirely removed.

Figs. 13, 14, and 15.—Cotton flowers, showing method of emasculation. The flowers were gathered one day before they would normally have opened. Flower 14 has had the upper portion of corolla cut away ready for emasculation. Flower 15 shows emasculation completed.

Fig. 16.—A cluster of Wilmot Hamburg grapes, showing difference in size between normal and seedless berries.

PLATE IV.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METHODS OF EMASCULATION. ALSO A GRAPE CLUSTER, SHOWING DIFFERENCE IN SIZE BETWEEN SEEDLESS AND SEEDED BERRIES.

U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN No. 23.

B. T. GALLOWAY, Chief of Bureau.

BERSEEM:

THE GREAT FORAGE AND SOILING CROP OF THE NILE VALLEY.

BY

DAVID G. FAIRCHILD,

AGRICULTURAL EXPLORER FOR SEED AND
PLANT INTRODUCTION.

Issued August 30, 1902.

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1902.

LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief.
Washington, D. C., May 20, 1902.

Sir: I have the honor to transmit herewith a paper on Berseem: The Great Forage and Soiling Crop of the Nile Valley, and respectfully recommend that it be published as No. 23 of the Bureau series of bulletins. The paper was prepared by Mr. David G. Fairchild, agricultural explorer, Seed and Plant Introduction, and was submitted by the assistant in charge of Seed and Plant Introduction.

Respectfully,

B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

PREFACE.

One of the most important duties of an agricultural explorer is the observation of methods of agriculture practiced in other countries, that show promise of having value if transferred to parts of the United States. Mr. David G. Fairchild has made some careful observations upon Egyptian agriculture with reference to its adaptability to parts of the irrigated Southwest, the accompanying article on berseem being one of the results of this study. It is not to be expected that every agricultural practice followed in Egypt can be bodily transferred to the United States, but it seems probable that at least for certain conditions this great Egyptian forage crop may prove of extreme value.

ERNST A. BESSEY,
Assistant in Charge of Seed and Plant Introduction.

OFFICE OF SEED AND PLANT INTRODUCTION.
February 6, 1902.

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BERSEEM: THE GREAT FORAGE AND SOILING CROP OF THE NILE VALLEY.

INTRODUCTION.

There are few countries in the world to-day where agriculture pays better than it does in Egypt. The methods of plowing and seeding have scarcely changed at all since the days of the ancient Egyptians, and yet without a single manufacturing industry worthy the name the valley of the Nile is entering upon an era of growth and prosperity which seems most remarkable even to an inhabitant of the Western Hemisphere.

While her great money-making crop is cotton, in the production and shipment of which she has much to teach her competitors, the foundation of her continued prosperity rests upon a leguminous fodder and soiling crop, about which the outside world has concerned itself very little.

Berseem, Alexandrian clover, or Egyptian clover (Pl. I), as it is variously called, is a species of Trifolium more or less closely related to the ordinary red clover. Its name, *Trifolium alexandrinum* L., probably has nothing to do with its origin; in fact there is good reason to believe that the plant came from some other part of the Mediterranean than that about Alexandria, and was introduced into Egypt in comparatively recent times. The total absence on the monuments of any bas relief which can be identified as this plant is remarkable if the species occupied in those days the important place it does now in the agriculture of the peasants or fellahin. There are few single species of plants which play in any country a more important rôle in its agriculture than is played by this Trifolium. It is the first crop planted after reclaiming the salt lands (Pl. II, figs. 1, 2, 3); it furnishes the green fodder for all work animals in the big towns (Pl. V, fig 1); on it graze all the beef and milch cattle (Pl. III, figs. 1, 2, 3); the camels are fed upon it (Pl. VI, fig. 2); the well-kept donkeys get their portion of it, and even the poor fellah carries a bunch of it in his hand and seems to enjoy its sharp clover taste. Nothing among the most varied agricultural sights which interest the tourist in Egypt in winter can be more conspicuous than the culture, harvest, and marketing of this essentially green-fodder crop. Every coachman has a bunch of berseem or a bag full of it under his feet with which he feeds his horse at the cab stand; every drayman has on top of his load a few handfuls for his bullocks or horses, and the donkey boys carry a bag of the freshly cut clover for their much-abused beasts. In the early morning all the avenues leading to Cairo are lined with long files of camels and donkeys half hidden under loads of this green forage. (Pl. IV, figs. 1, 2, 3.) The fields on either side of the railway impress one as the greenest and cleanest meadows he ever saw. Scarcely a weed is in sight. (Pl. VII, fig. 1.) Planters say that the culture of berseem is very valuable for killing out many kinds of weeds. Not another fodder crop is conspicuous enough to attract one's attention as one gazes over the most beautiful agricultural checkerboard in the world. It is the one great fodder crop of Lower Egypt, and about it, as it were, all the other cultures are arranged. Over 940,000 acres of it were grown as far back as 1891. This amount has been probably considerably increased.

To an American farmer clover is only one of a number of fodder crops, but to the Egyptian fellah his berseem furnishes not only his principal fodder, but his principal manure as well.

The great fertility of the Nile silt and its manurial value has been so much written about that we have gotten accustomed to considering Egyptian agriculture as the tillage of a perpetually renewed alluvium. It will surprise some, especially farmers in the Mississippi Valley, to learn that this Nile soil is so lacking in nitrogen that in most places two good crops of Indian corn can not be raised in successive years off the same field, and the culture of sugar cane is considered much too exhausting for many Egyptian soils. This condition of affairs is not to be wondered at, considering that most of the manure has for centuries been collected by the "manure girls" and dried into cakes for fuel and only the liquid elements returned to the land, mixed with dry earth with which the stalls are strewn. This bad practice, carried on as it has been for thousands of years, would have, according to our present ideas, quite exhausted the fertility of the soil notwithstanding the yearly deposits of silt had it not been for the culture of leguminous crops. The action of soil bacteria is as yet too little understood to demand recognition in the above statement, although it is highly probable that bacteria play a most important part in the matter. The writer never saw a region where the opportunities for soil studies seemed so promising. According to Wilcox, in his Egyptian Irrigation of 1899, no important soil analyses of Nile silt have been made since 1875, and, so far as I know, no bacteriological examination has ever been made of it.

The ancient Egyptians doubtless cultivated several leguminous crops, although the museums of Egyptology do not exhibit their seeds because the plants seem in no way to have been connected with their religious customs, and so far as discovered the bas reliefs of the tombs and monuments show no convincing evidences of their use. A bas relief in the tomb of Thy at Sakkara, of which a part is even illustrated in Baedeker's Egypt (p. 139), represents several calves tethered in a field of some forage plant or other in a manner quite resembling that of the present day. This bas-relief is about 4,500 years old. In the collection of seeds and dried plants in the Gizeh Museum which was made by Professor Schweinfurt is a small bowl of the seed of an unmistakable leguminous plant, probably a Medicago, from the temple of Isis at Dendera, which was, however, of comparatively recent times, being in the first Christian century.

Dr. Schweinfurt, who is an authority on the botany of Egypt and the ancient Egyptians, states that no picture, bas relief, name, or authentic seeds of berseem had ever been discovered in any of the tombs of Egypt. He discredited the correctness of certain finds made at Kahun by Flinders Petrie and identified by Percy Newberry as seeds of berseem, saying that there is in his mind a question as to whether these came from really ancient tombs. The name berseem bears a close resemblance to the Arabic name for lentil ("belsem" or "bersem"), and Dr. Schweinfurt thinks it not unlikely that when the Arabs conquered Egypt they applied this to the clover then cultivated in the country. The plant has nowhere been discovered wild, but a Byzantine variety (*Trifolium alexandrinum* var. *phleoides*, Boiss.) exists at Kilsali, near Smyrna, and it is probable that the plant was introduced into Egypt about the sixth century.

GENERAL USES.

Berseem is not only an annual clover, but it is a winter clover for warm countries where irrigation is practiced. Where the conditions of mild winter and abundant water supply for irrigation exist it can scarcely fail to prove a most profitable introduction, for it starts into growth with remarkable rapidity, outgrows most kinds of weeds, and yields one of the most palatable and nutritious green fodders known. Anyone having once seen it in Egypt can not fail to be impressed with its great value. It resembles quite closely when young our common alfalfa, but its flowering heads, although white, are in form like a loose-headed variety of red clover. (Pl. I and Pl. VI, fig 1.) The hollow stems are exceedingly succulent; in fact the whole plant is in every way more delicate than either clover or alfalfa, and it is eaten not only by domestic animals, but even by the fellahin.[a]

The root system of the berseem is not a large one, but remarkable for its abundant and succulent tubercules. (Pl. VIII, figs. 1 and 2; Pl.

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[a] The writer is aware that the fenugreek, which resembles berseem somewhat, is a common green food of the peasants.

IX, figs. 1 and 2.) Being an annual and grown in general on irrigated land, it has not the faculty of going far in search of water, hence is not suited to cultivation on dry, arid soils, even though possessing a deep underlying layer of moister soil. The distinct differences between berseem and lucern or alfalfa must be insisted upon if the crop is to be made a success. (Compare roots of alfalfa and berseem, Pl. X.)

In Egypt, where both plants are grown—the alfalfa, however, only experimentally—the distinctions are very evident. The berseem is an annual and never grown more than nine months, while alfalfa is a perennial, which gets its full growth only in the second year. Berseem is planted in the autumn as late as October and cut in the late winter or early spring, from December to June, while alfalfa is planted in the spring (March to May), and cuttings are made in the summer and winter, or from April to December. The former is a short-lived winter-fodder plant for soils on which other crops are grown in the summer, while the latter is a perennial summer-fodder crop for rotations extending over several years or for permanent meadows.

Doubtless much of the continued fertility of the Nile soils may be attributed to the culture of this single crop, and nothing can be more striking than the dependence placed in it not only by the fellahin, but by the keenest modern cultivators in Egypt. It seems to be a sort of cure-all for the land, and no such thing as clover sickness from its culture is known. Until the Khedivial Agricultural Society endeavored to introduce artificial manures last year, nothing but the stable manure was employed, dependence being placed in the nitrogen stored in the soil by these tubercules. Mr. Wilcox, who is an authority on irrigation matters in Egypt,[a] said he had seen land steadily improve in fertility under a culture of half-year cotton and half-year berseem without the addition of any manures or fertilizers whatever. In his book on irrigation, p. 219, he remarks that—

> Berseem eats down salts if they are present in small quantities and enriches the soil with nitrates. * * * Many think that while cotton in summer is followed by clover (berseem) in winter, and cereals in winter are rigidly excluded, the rotation of cotton and clover can be carried on unlimitedly without any appreciable deterioration of the soil.

The cotton is planted in March and harvested in October and is followed by berseem, which is planted in October and plowed under in March.

Mr. Lang Anderson, manager of the Aboukir Land Company, who is reclaiming in the Nile delta over 30,000 acres of alkali land, says he is dependent upon berseem to bring up his soil, after the salt has been washed out of it, to a state of fertility suitable for cotton growing. The writer visited these remarkable reclaiming basins and saw land on which cattle and horses were tethered and grazing in a luxuriant growth of berseem which two years before was as barren of vegetation as a bathing beach. (Pl. II, fig. 3.) The amount of nitrogen stored in the soil by the roots of this plant must have been considerable, for cotton was grown on it the third or fourth year.

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[a] W. Wilcox, author of "Egyptian Irrigation," which has already gone through a second edition. Now managing director of the Daira Sanieh Company in Cairo.

Nothing could be more striking than the contrast between the roots of some alfalfa which I examined at several places in Egypt and those of this Egyptian clover. (Pl. X.) In the former the roots of both young and old plants were conspicuous for their freedom from tubercles, only an occasional almost microscopic one being observable, while the latter were often little less than a mass of these nitrogen-bearing bodies. (Pl. VIII, figs. 1 and 2; Pl. IX, figs. 1 and 2.) It is probable that the bacterium of the alfalfa nodule has not been introduced into Egypt and that it is distinct from the germ of the berseem tubercle. Possibly former trials with berseem in America have not succeeded well for a similar reason. It is expected that experiments which have been already started will solve this problem.

Too much stress can hardly be laid upon the necessity of a thorough study of the soiling value of this Egyptian clover, for its application to irrigated orchard lands in California and Texas may prove of the greatest importance. The Colorado Desert region, with its abundance of water, mild climate, rich soil, and other conditions for irrigation, seems an ideal place for the trial of this Egyptian culture, and if the rotation of crops can be adapted to its employment it should prove a great success. If Egyptian cotton can be made to succeed in this region, as is now hoped, this soiling crop will be of great value for a winter culture.

In the dry, irrigated regions of northern Africa, in Tunis and Algiers, this plant has already begun to attract the serious attention of the French experimenters. Mr. Gagey, of the Tunis Agricultural College, has tried it and is very enthusiastic over its quick growth and large production of green fodder. He was planning to secure seed for planting on a large scale. During the year in which the berseem was grown at the college in Tunis the thermometer sunk to nearly 2° below freezing, but the plant was not injured in the least. In the remarkable trial gardens of Dr. Trabut at Rouïba, in Algiers, the fields of berseem were among his most promising experiments, and a temperature of 9° below freezing (23° F.) did not injure them.

VARIETIES.

There are three distinct varieties of berseem known in Egypt[a] and their characters must be understood if one wishes to make a success of their introduction.

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[a] Boissier gives *Trifolium alexandrinum* var. *phleoides* Boiss. as a variety occurring in Kilsali, near Smyrna, but says nothing as to whether it is in cultivation or not.

Muscowi (Pl. I), which is the variety commonly grown in the delta, where perennial irrigation is practiced and an abundance of water is always obtainable, is by far the most important of the three. It grows not uncommonly to a height of 5 feet and over (see Pl. IX, fig. 3), being the rankest grower of the three. It is broadcasted by the fellah or Egyptian peasant directly on the mud which is produced by flooding the land and allowing it to dry slightly. As much as a bushel of seed is sown per acre, but in the crude method of broadcasting a large amount of seed is wasted and a regular clover-seed sower could be used to advantage. In Egypt the seed is worth less than 5 cents a pound, or about the value of crimson clover, which it very closely resembles. Fully 10 per cent of Egyptian seed is, however, valueless, and it is, like all seeds in these warm climates, subject to weevils. The seed is raked in slightly to cover it and often in three days in Egypt the young plants are above ground. According to Mr. Lang Anderson as much as 10 per cent of the seed sometimes fails to germinate. The subsequent watering and attention depend somewhat on the condition of the land, but after each cutting a thorough irrigation is given, not immediately, but leaving sufficient time to elapse for the cut stubble to dry up and cure, otherwise the water will rot the newly cut stems and will often kill the plants. The sowing season varies from the 1st of September until the middle of January, according to location. If sown early in the autumn four cuttings can be secured, while only three are obtained when planted later; for although the plant may make but little growth above ground if sown in the cool autumn, it establishes itself and starts into a more vigorous growth in the early spring. A most important point in the culture of this crop is that it is injured by intense heat. Near Cairo, in early May, where the temperature had not gone above 92°, the berseem had begun to show signs of dying out, and by the 1st of June, the writer was informed, it would have almost entirely disappeared. A variety called *Kadrawi* is said to have a longer vegetative period, giving one more cutting than usual, but the writer has been unable to verify the statement. The Muscowi berseem, if planted in the early autumn, will give four cuttings. The first and second cuts will yield about 8 tons of green forage each, and the third and fourth only 6 tons apiece. When seed for next season's culture is required it is the practice to let the plants go to seed in June after the fourth cutting; otherwise often a fifth though inferior cutting is made. The yield of seed is much heavier than that of clover. When planted early the first cut may be taken in fifty days, but if the weather shortly after planting is cold, seventy days are required. The writer saw a field of late berseem planted January 5 which had been cut March 11, at which time it was 18 inches high. A second cutting was made April 7, and a third April 30, after which the roots were plowed under.

In some experiments carried on at the Algerian Experiment Station of Rouïba by Dr. Trabut, the seed was sown much earlier in the season and the yield was estimated as much higher. Sown on the 26th of July, the field was cut on the 12th of September, when it yielded at the rate of 28 metric tons to the hectare, equivalent to 14 tons per acre, while the second cutting of 13 tons, and the third of 15 tons, made the total of 42 tons of green fodder for three cuttings, as compared with 28 tons, the usual Egyptian yield for four cuttings. The better care given to the experimental plats and possibly a richer soil would account for the difference in yield in the two countries.

The profitableness of the crop as grown in Egypt depends largely upon the proximity of a market for the green fodder. Egypt is not a beef-producing country; from 10,000 to 15,000 head of cattle were imported annually up to a few years ago.[a] There are few large herds of cattle, and the dairy interests are in their infancy. Near Cairo, at Benisuif, the berseem fields are let for grazing or cutting purposes (Pl. XI, figs. 1 and 2) for £8 a feddan, which would be equivalent to about $38 an acre. At Gizeh £10, or about $48 an acre, are paid for the four cuttings, while even as high as $19 an acre per cutting is sometimes paid for especially luxuriant fields of berseem. It was learned that there was government land on which the rents amounted to only $40 an acre, upon which the berseem alone had sold for $42.50, leaving the summer crop to pay for management and the profits.

In Egypt there is a tradition that berseem can not be profitably planted in spring or before the 1st of October, because of the hot, dry weather between these dates; some of the more venturesome English experimenters, however, declare this tradition to be founded on superstition rather than fact, and recommend planting it as late as the last of April. In Algiers, Dr. Trabut has planted it in midsummer (the 26th of July) with good results.

The temperature records of Egypt for the months of June, July, and October (of an average season, 1895) are appended for purposes of comparison with the arid regions of this country, and from them it is evident that if the traditions regarding the deleterious effects of the hot season in Egypt were true it would be impossible that the crop would succeed if started in the hot summer of the Colorado Desert, for example. However, a few experimental plantings will probably be of more value than any study of temperature charts.

Month.	Temperature.			Relative humidity.	
	Mean.	Maximum.	Minimum.	Maximum.	Minimum.
	°F.	°F.	°F.		
June	+78	+103	+56	90	10
July	+82	+104	+66	91	13
October	+70	+ 90	+54	97	17

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[a] McKenzie, in Journal of Khedevial Agricultural Society, Vol. I, No. 6, p. 259.

A comparison of the chemical analyses of green berseem and lucern has been made in Egypt, and it is given here to show how much more succulent the former is, containing 86.11 per cent of water, while lucern contains only 74.35 per cent. Berseem is poorer in nitrogen and starch, but also has less fiber in it than lucern. It is unfortunate that no analyses of the dry berseem are at hand, for the comparison of the green fodder alone does not give a fair idea of its food value.

Comparison of chemical analyses of green berseem and lucern, in Egypt.

	Berseem.	Lucern.
	Per cent.	*Per cent.*
Moisture	86.11	74.35
Albuminoids	2.29	4.35
Fats	.74	1.06
Starch, etc	5.78	9.62
Fiber	3.41	8.41
Ash	1.67	2.21

Fachl berseem (Pl. XII, fig. 1) is a variety used in Egypt on land which is irrigated by the basin system—i. e., overflowed for forty days in the autumn months from August until November, depending on the latitude and Nile overflow.

The seed is broadcasted at the rate of a bushel per acre on the Nile mud, which has been deposited from the meter or so depth of water which has stood over the land. No later irrigation is given it, and as a consequence it only gives one cutting. This cutting, however, yields 9 tons of green fodder per acre, and having more substance in it than the Muscowi, it makes a heavier hay. It is said to be fed extensively to donkeys. In order to get seed for planting it is often the practice to sow this variety mixed with wheat or barley and reap both together, separating the berseem seed from the grain only after the thrashing has been done. This variety is therefore a short-lived form and will prove of value on such lands as can be given only a single but heavy irrigation in the autumn.

The flood plains of the Colorado Desert region may some day be supplied with that remarkable system of basin irrigation (Pl. VII, figs. 2 and 3) which, although gradually disappearing from many parts of Egypt, is still acknowledged by experts like Mr. Wilcox to be the most wonderful of any, preserving the deposits of rich silt, which, by the perennial method, are largely lost. Such irrigation basins will be preeminently suited to the cultivation of this variety of berseem, and it may find a use as well on land under perennial irrigation where only one cutting is desired.

Saida is the name of a variety of berseem which, although yielding less than Muscowi, is relatively more nutritious. It possesses a comparatively long tap root (see Pl. XII, fig. 2) which enables it to thrive with much less water than is required for Muscowi, and it is, in fact, considered a kind of dry land berseem. It is sown in the basins but requires subsequent irrigation, as it yields two cuttings. Being a cheaper seed than that of the Muscowi, it is often sold in place of the latter. In habit it is lower and has a peculiar glaucous appearance, enabling one to distinguish it from the Muscowi. Its root system is abundantly supplied with tubercles and is eminently fitted to sustain the plant during prolonged droughts. It was observed growing luxuriously upon stiff Nile silt which was so baked and dried out that large cracks had formed in it to a considerable depth. On an average 6 tons only of green fodder is produced by the first cutting and 4 to 5 by the second or last. It is not sown to any extent in the Delta, but is common above Cairo. Experiments with this variety should be made on soils likely to suffer from drought, and even on land not under irrigation in regions depending on the natural rainfall, such as southern Texas, and Louisiana and Florida.

USE AS A GREEN FODDER.

The peculiar value of this crop lies in its use as a green fodder, and throughout lower Egypt there is scarcely an animal, either in the city or on the farms, which is not put on berseem for at least a month in the spring. Most marvelous fattening and conditioning properties are ascribed to it. Naturally the first effect upon an animal which has been fed all winter on chopped straw and barley is a purgative one (many cultivators mix a small amount of seed of fenugreek (*Trigonella fœnumgrecum*) with their berseem seed on sowing to increase the conditioning effect of the fodder) and weak animals are sometimes injured by the practice of tethering them all day long in the berseem fields, but, if strong enough to stand it, the scouring effect puts them in good condition and they are sent back to the stables in town in excellent flesh. It is a curious sight, that of a country with every beast of burden undergoing a sort of cure. In general, animals are not worked very steadily while on this green diet, as it is not sufficiently strong, and barley is often given work horses as an addition to the green fodder.

The small expense connected with the raising of this Egyptian clover and its effect in keeping the weeds in check are points decidedly in its favor. This latter property is more a matter of the frequent cuttings, which prevent weeds from seeding, than any effect of crowding out on the part of the clover. Although weeds grow with the usual astonishing rapidity in Egypt, in general there are fewer weeds than in any other agricultural region ever visited by the writer. Whether the berseem is responsible and how far for this clean culture will be hard to determine.

As a food for milch cows (Pl. III, figs. 2 and 3) one can imagine no sweeter or more delicate one, and from the samples of butter tasted on Mr. Zervudachi's place at Kafr. Dewar, it must be a most excellent milk producer. The large amount of water contained in the green food, however, may influence unfavorably the quality of the milk, making it poor in fats, and complaints in this regard were heard, but certainly for fine flavor the butter tasted was equal to the finest Finnish or Danish butter put on the London market.

BERSEEM AS A HAY CROP.

It would be a great mistake to underestimate the value of Egyptian clover as a hay crop. Great quantities of the cut clover are cured into hay or what the Egyptians call "drees" (Pl. VI, fig. 3) and stored for summer feeding, when a scarcity of green fodder makes the dried hay very acceptable.

Four to 5 tons of this freshly cut plant yield 1 ton of "drees," a curious brittle hay, snapping between one's fingers like pipestems, and apparently with scarcely any substance to it.

In comparison with alfalfa the freshly cut berseem has 89.61 per cent of water instead of 74.35 per cent, and only 3.41 per cent of fiber in place of 8.41 per cent. The percentage of albuminoids is correspondingly poor, being only 2.29 per cent as compared with 4.35 per cent. But notwithstanding the 15 per cent larger shrinkage, the value of the hay is sufficient to induce such men as Mr. Beyerlé of the Egyptian Crédit Foncier to grow it in fields large enough for American mowing machines (Pl. XI, fig. 3; Pl. XIII and XIV) and sulky rakes to operate in and by means of portable tramways to transport it to his barns. (Pl. V, figs 2 and 3; Pl. XIV.) No baled drees was seen, and baling does not appear to be commonly done in Egypt. Owners of properties some distance from the markets find it does not pay to grow berseem on all of their land not occupied, but, instead, let many acres go fallow.

The yield of hay per acre would vary according to the variety and cutting. Muscowi would yield for the first and second cutting 1⅗ tons per acre each and for the third and fourth about 1½ tons apiece, making for the four cuttings of the season 6⅕ tons of dried hay per acre, which is 2⅕ tons in excess of the maximum yield given for red clover in America, which is cut only twice.[a]

CONCLUSION.

In conclusion, the object of this bulletin is to call attention to a remarkable crop which, in Egypt, is of the very greatest importance both as regards the value of its green and dried fodder and its fertilizing effect upon the soil, and if possible to introduce its culture into such regions of the United States as shall be suited to its profitable cultivation. A considerable quantity of seed has been secured through the kind assistance of Mr. George P. Foaden, of the Khédevial Agricultural Society of Cairo, for distribution by the Section of Seed and Plant Introduction, and experiments to test it are now under way. Previous experiments with the culture of berseem were based upon an insufficient knowledge of its peculiarities as a winter crop and their failure was practically assured from the start.

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[a] Owing to lack of accurate data it was hard to ascertain the yield of drees per acre in Egypt. None could be found who had actually measured it. The figures given are those furnished by Mr. Bonaparte, of the School of Agriculture at Gizeh.

It is designed to have the plant tested as a half-year rotation for cotton in Texas, and in connection with the culture of the newly imported Egyptian cotton now being grown experimentally in Arizona and southern California. It is hoped also that it will find a place for itself as a winter soiling and fodder crop for orchards and vineyards in such regions as Arizona and California, where winter irrigation, which has been shown to be so beneficial by Professor McClatchie, is practiced. For spring forage, berseem may prove of value for the Northwest if planted after all danger of frost is over and harvested before the excessive heat of summer comes on, and the humid climate of Washington and Oregon may admit of its use in rotation with wheat, where now many thousands of acres lie fallow throughout the winter. Until careful tests have been made it will be impossible to say to which of these purposes it will prove best adapted.

DESCRIPTION OF PLATES.

PLATE I.

Plant of Muscowi berseem in full flower. Natural size. From a photograph taken by Mr. C. S. Scofield of a plant in the trial gardens of Dr. Trabut at Rouïba, near Algiers.

PLATE II.

Reclamation of salt lands by the aid of berseem. Fig. 1. Salt land of Aboukir estate near the seacoast of the Nile Delta before any attempts at reclaiming have been made. Fig. 2. Aboukir estate; fresh-water canal at right of picture; on the left, drain for salty water after it has been used for washing salt lands. Fig. 3. Horse feeding in field of berseem on salt lands of Aboukir the second year after the washing and reclaiming work has been begun.

PLATE III.

Fig. 1. Water buffaloes feeding in a berseem field at Kafr. Dewar on the estate of Mr. Em. Zervudachi. Fig. 2. Cattle tethered in a berseem field near Cairo. Fig. 3. Cattle in barn, feeding on fresh berseem, at Mr. Beyerlé's estate at Bordein, Egypt.

PLATE IV.

Fig. 1. Camels loaded with fresh berseem starting for Alexandria. From photograph taken by Mr. Brand, of Aboukir estate. Fig. 2. Early morning on the road from the Pyramids. Camels loaded with fresh berseem. Fig. 3. A donkey load of fresh berseem.

Plate V.

Fig. 1. Taking green berseem to market. A donkey cart load of berseem which has just been watered to make it weigh more. Fig. 2. Making berseem hay or "drees." Tram wagonload of "drees," showing method of handling on the large estate of Mr. Beyerlé at Bordein. Fig. 3. Tram train of "drees" ready for the barns, Mr. Beyerlé's estate at Bordein.

Plate VI.

Fig. 1. A field of berseem in full flower on Mr. Beyerlé's estate at Bordein. Fig. 2. Camel grazing in field of berseem, Aboukir estate. Fig. 3. A windrow of berseem hay or "drees."

Plate VII.

Fig. 1. A field of berseem before flowering. Roadside near Alexandria. Fig. 2. The irrigation basins of Bedraschine, showing embankment dividing two large basins. Ruined native town in background. Fig. 3. Flood gates barring the entrance to the irrigation basins shown in Fig. 2.

Plate VIII.

Fig. 1. Roots of Muscowi berseem, showing numerous root tubercles on the main and lateral roots. Slightly enlarged. Fig. 2. Roots of Muscowi berseem from a patch which had been cut but once. Natural size.

Plate IX.

Fig. 1. Young plant of Muscowi berseem shortly after the first cutting, showing the base of the dead stem and the new living lateral shoots. Greatly reduced. Fig. 2. Roots of the plant shown in Fig. 1, showing the numerous tubercles. Natural size. Fig. 3. A single plant of Muscowi berseem from Mr. Beyerlé's estate at Bordein on April 14, 1901.

Plate X.

Root of ordinary alfalfa on left and of Muscowi berseem on right, showing the great difference in habit of the two plants, and also the greater number of root tubercles on the berseem. Natural size.

Plate XI.

Fig. 1. Cutting berseem by hand sickle and loading on donkey cart for the market. Fig. 2. Cutting berseem with a scythe; photographed by Mr. Brand, of the Aboukir estate. Fig. 3. Cutting berseem with an American mowing machine on the estate of Mr. Beyerlé, Bordein, Egypt.

Plate XII.

Fig. 1. Plant of Fachl berseem gone to seed, showing the dry heads and shriveled leaves. Gizeh irrigation basin near the Great Pyramids. Photograph taken May 1, 1901. Fig. 2. Plant of Saida berseem in full bloom, showing the long taproot. From the Gizeh irrigation basin near the Great Pyramids. Photograph taken May 1, 1901.

Plate XIII.

American mowing machine and rake in a field of berseem on the estate of Mr. Beyerlé at Bordein, Egypt.

Plate XIV.

Loading trams with berseem hay on estate of Mr. Beyerlé at Bordein, Egypt.

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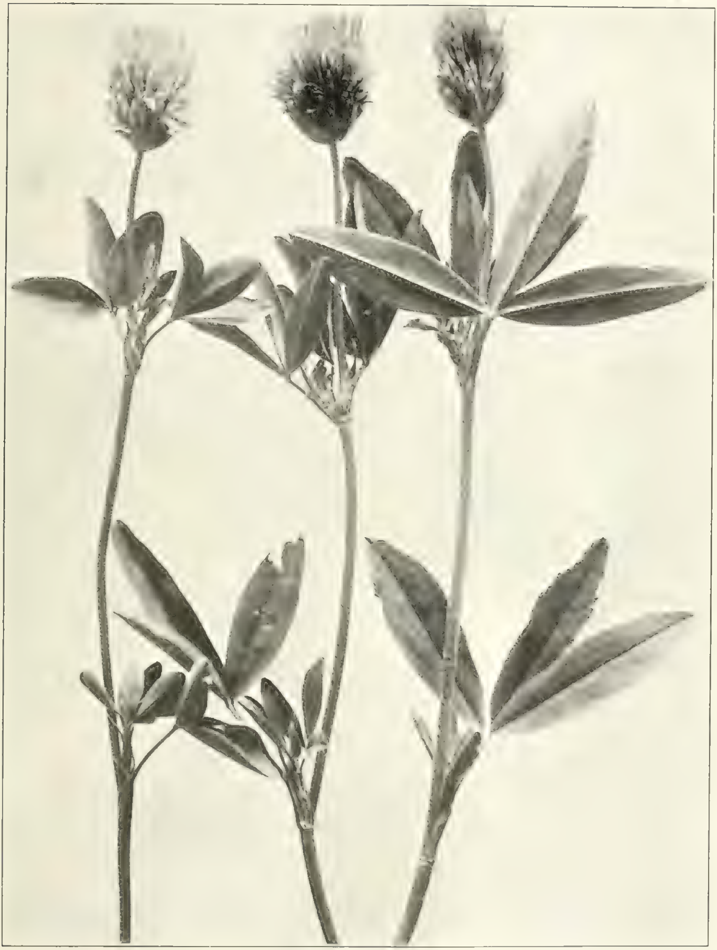


MUSCOWI BERSEEM.

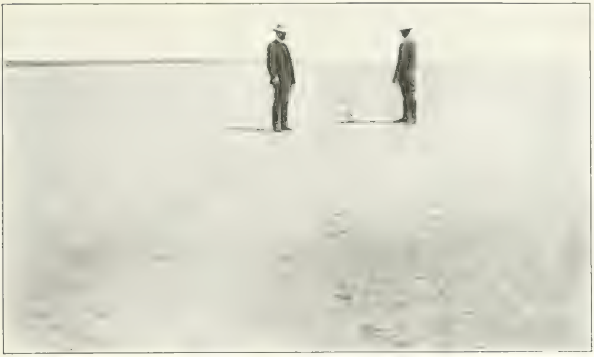


FIG. 1.—ORIGINAL ASPECT OF SALT LANDS.

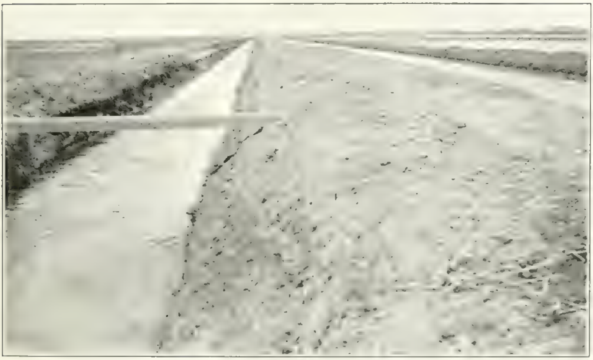


FIG. 2.—DITCHES IN SALT LANDS.

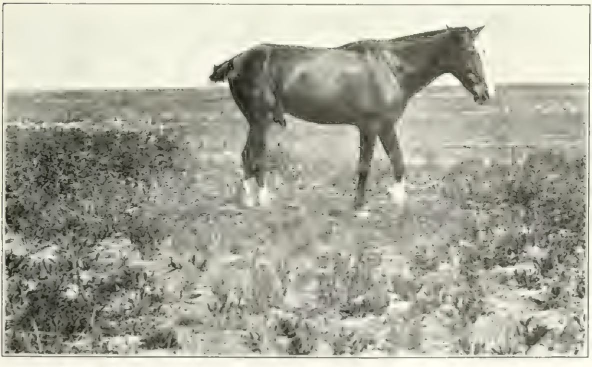


FIG. 3.—GROWTH OF BERSEEM ON SALT LANDS.

RECLAIMING SALT LANDS WITH THE ASSISTANCE OF BERSEEM.

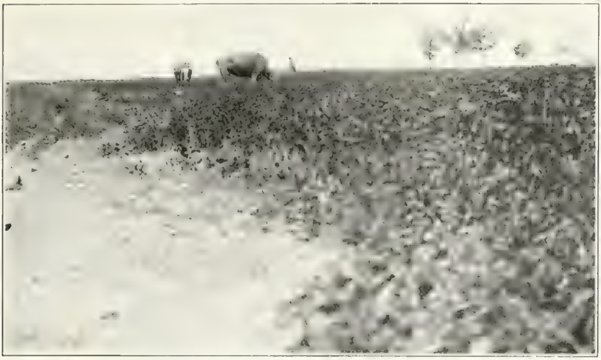


FIG. 1.—CATTLE GRAZING IN FIELD OF BERSEEM.

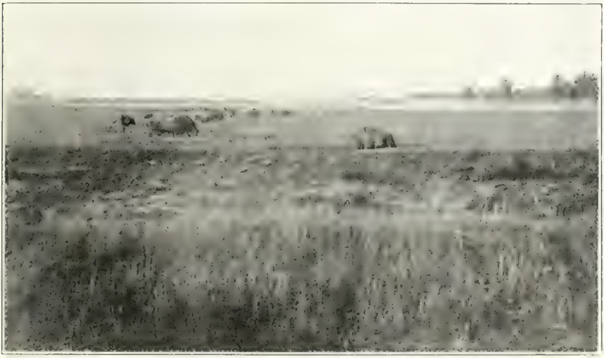


FIG. 2.—CATTLE GRAZING IN FIELD OF BERSEEM.

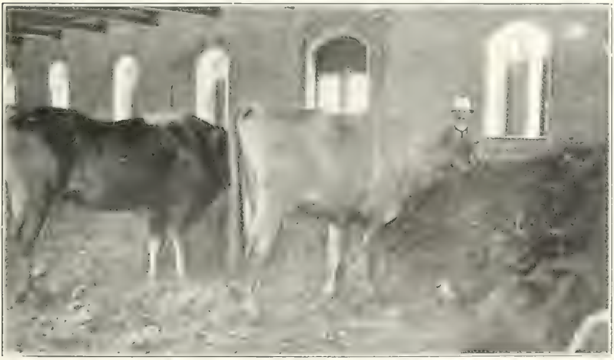


FIG. 3.—BERSEEM USED AS A GREEN FODDER CROP.

BERSEEM USED AS A PASTURE AND GREEN FODDER CROP.

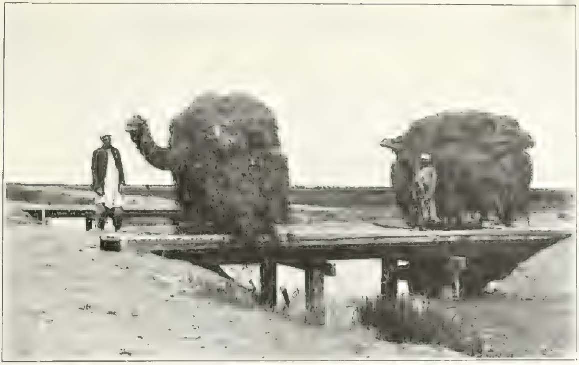


FIG. 1.—CAMELS CARRYING GREEN BERSEEM TO MARKET.

FIG. 2.—LINE OF ANIMALS LOADED WITH GREEN BERSEEM.

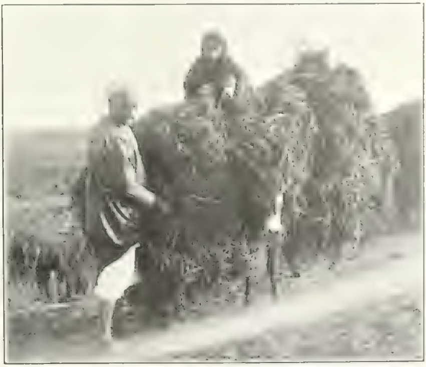


FIG. 3.—DONKEYS TRANSPORTING GREEN BERSEEM.

BRINGING GREEN BERSEEM TO MARKET.

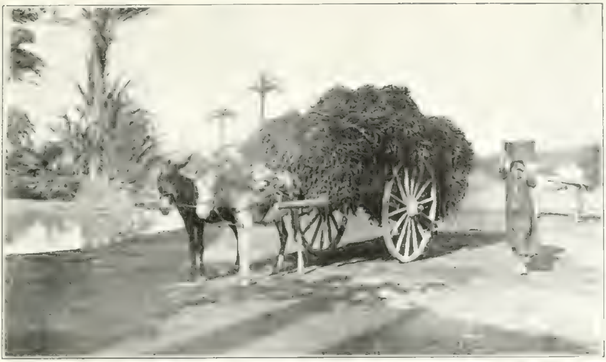


FIG. 1.—TAKING GREEN BERSEEM TO MARKET

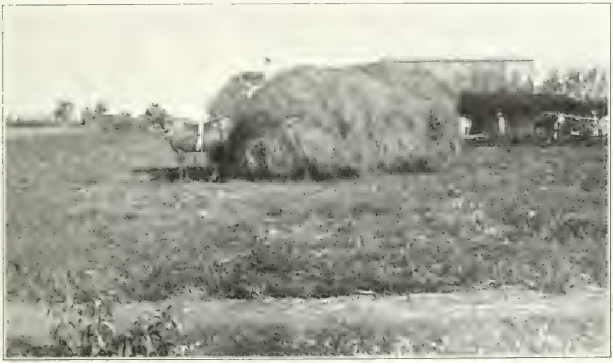


FIG. 2.—TRAIN WAGONLOAD OF "DREES."

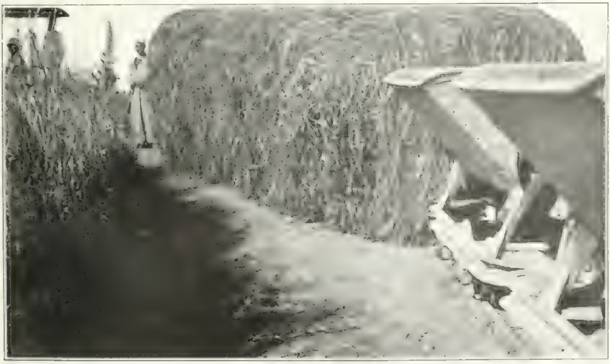


FIG. 3.—TAKING BERSEEM HAY OR "DREES" TO THE BARN.

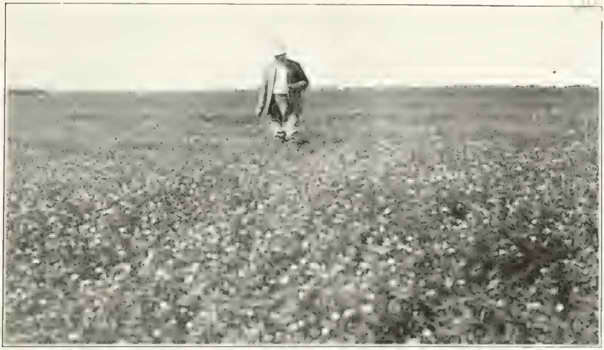


FIG. 1.—BERSEEM IN FULL FLOWER.

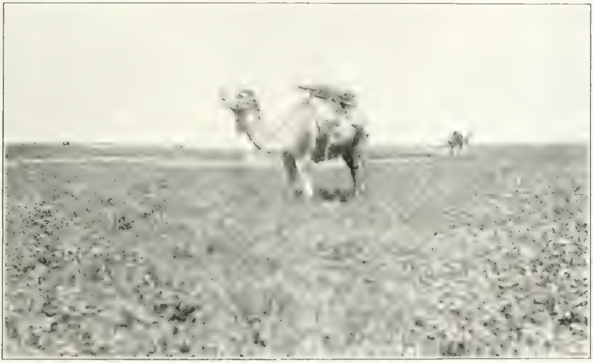


FIG. 2.—CAMELS GRAZING IN FIELD OF BERSEEM.

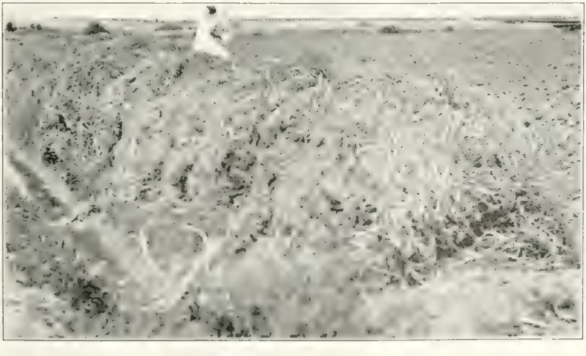


FIG. 3.—A WINDROW OF BERSEEM HAY OR "DREES."

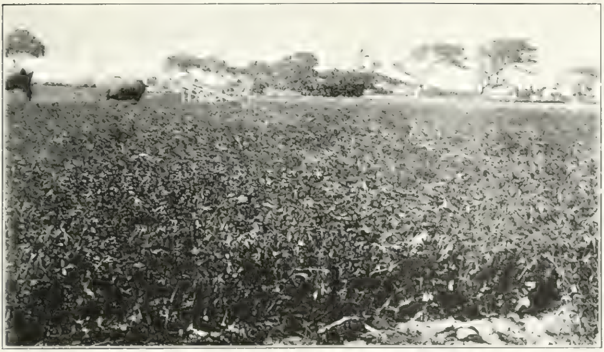


FIG. 1.—FIELD OF BERSEEM BEFORE FLOWERING.

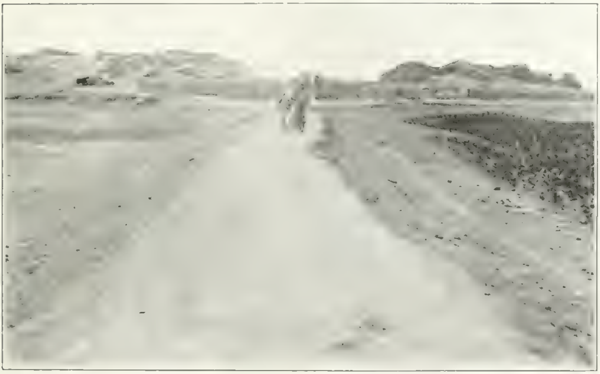


FIG. 2.—EMBANKMENT DIVIDING TWO IRRIGATION BASINS.

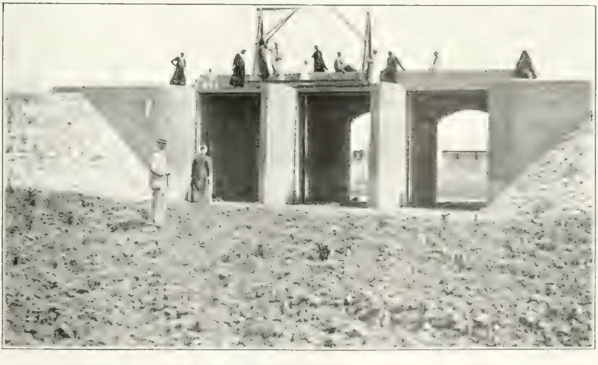


FIG. 3.—FLOOD GATE FOR IRRIGATION BASINS SHOWN IN FIG. 2.

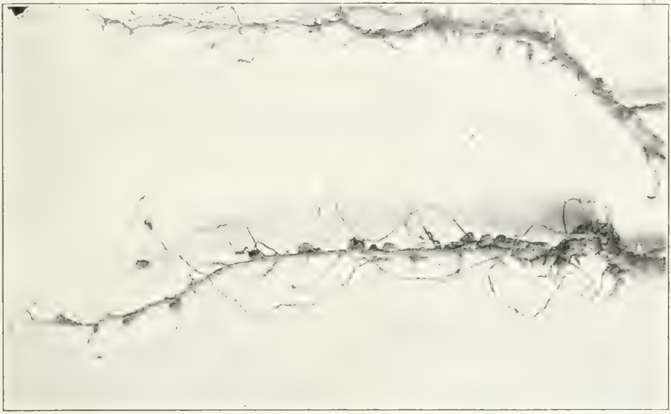


FIG. 1.—ROOTS OF MUSCOWI BERSEEM, SHOWING TUBERCLES ON MAIN AND LATERAL ROOTS. SLIGHTLY ENLARGED.

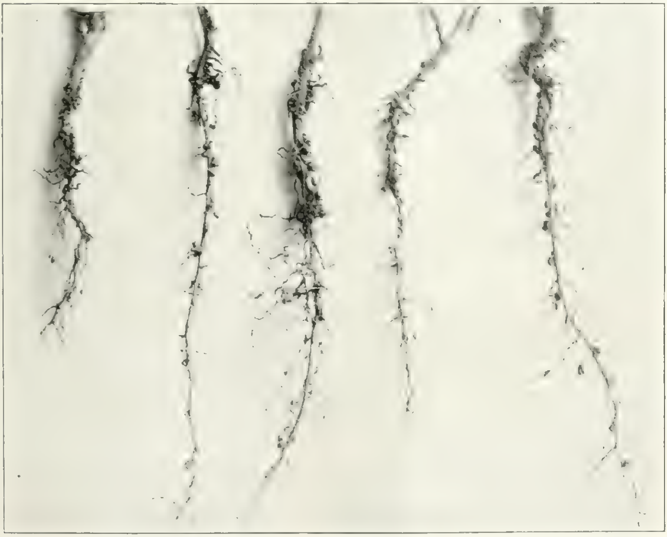


FIG. 2.—ROOTS OF MUSCOWI BERSEEM TAKEN AFTER FIRST CUTTING. NATURAL SIZE.

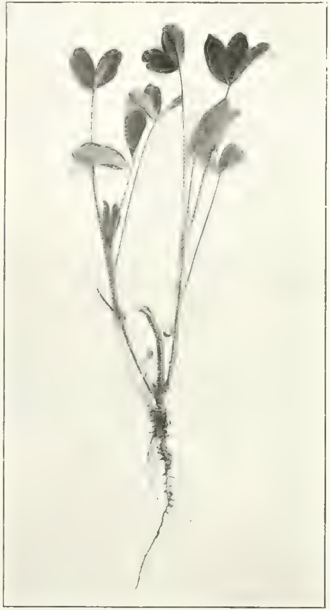


FIG. 1.—YOUNG PLANT OF MUSCOWI BERSEEM SHORTLY AFTER THE FIRST CUTTING. REDUCED TO THREE-EIGHTHS. NATURAL SIZE

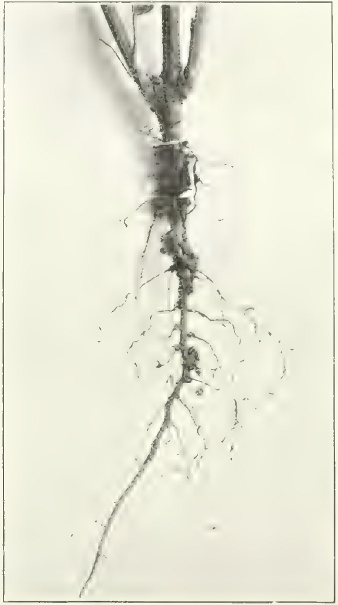


FIG. 2.—ROOTS OF PLANT SHOWN IN FIG. 1. NATURAL SIZE.

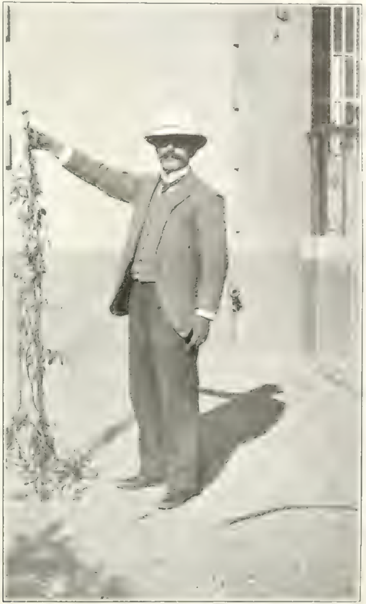
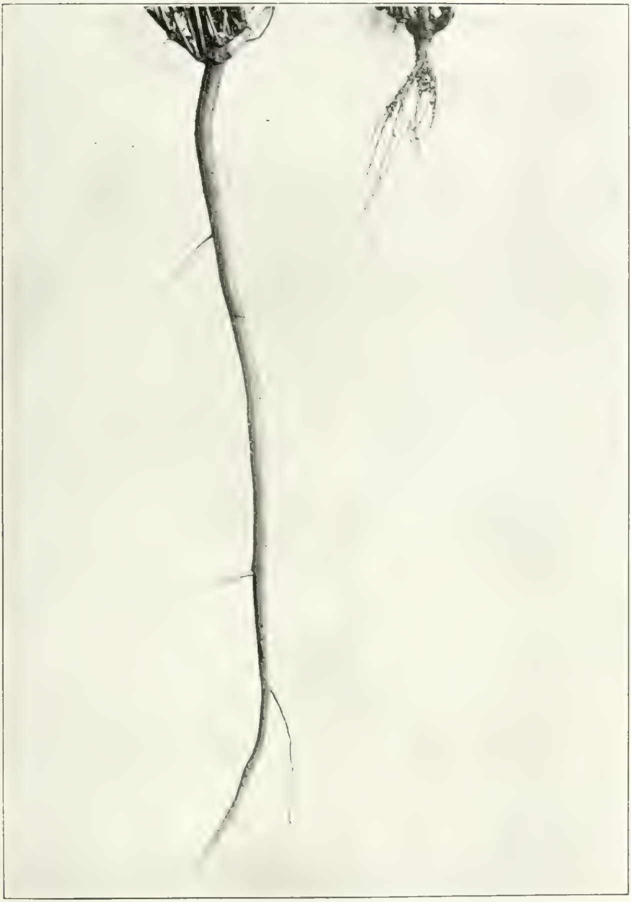


FIG. 3.—PLANT OF MUSCOWI BERSEEM, SHOWING HEIGHT IT ATTAINS.



ROOTS OF ORDINARY ALFALFA (ON LEFT) AND MUSCOWI BERSEEM (ON RIGHT).

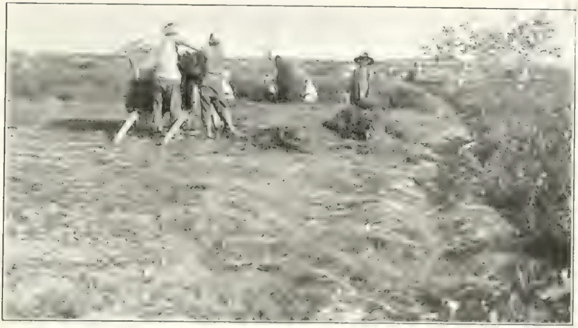


FIG. 1.—CUTTING BERSEEM WITH HAND SICKLE AND LOADING A CART FOR MARKET.

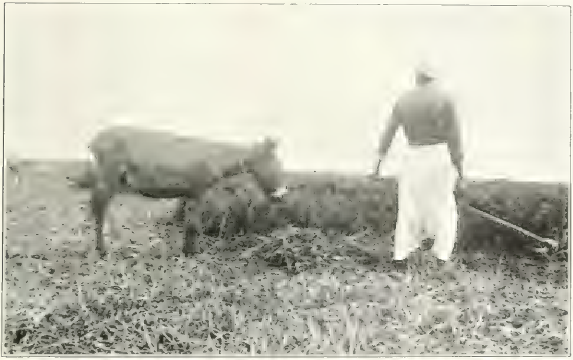


FIG. 2.—CUTTING BERSEEM WITH SCYTHE.

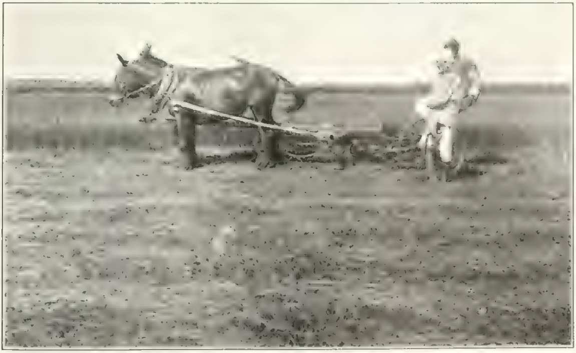


FIG. 3.—CUTTING BERSEEM WITH AMERICAN MOWING MACHINE.

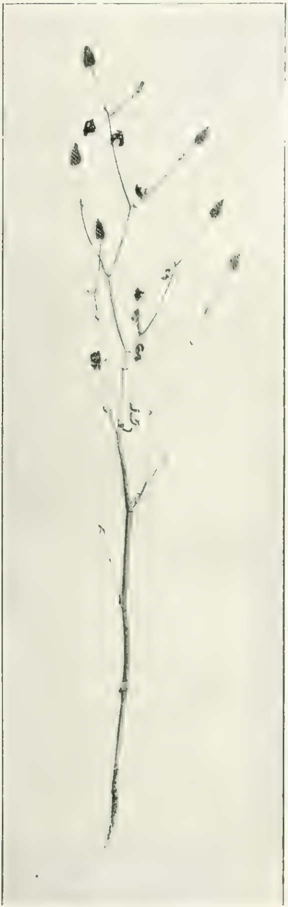


Fig. 1.—Plant of Fachl Berseem Already Gone to Seed, May 1, 1901.

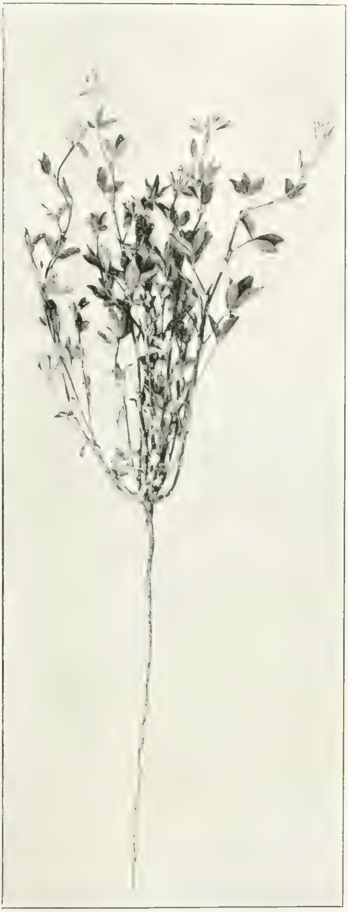
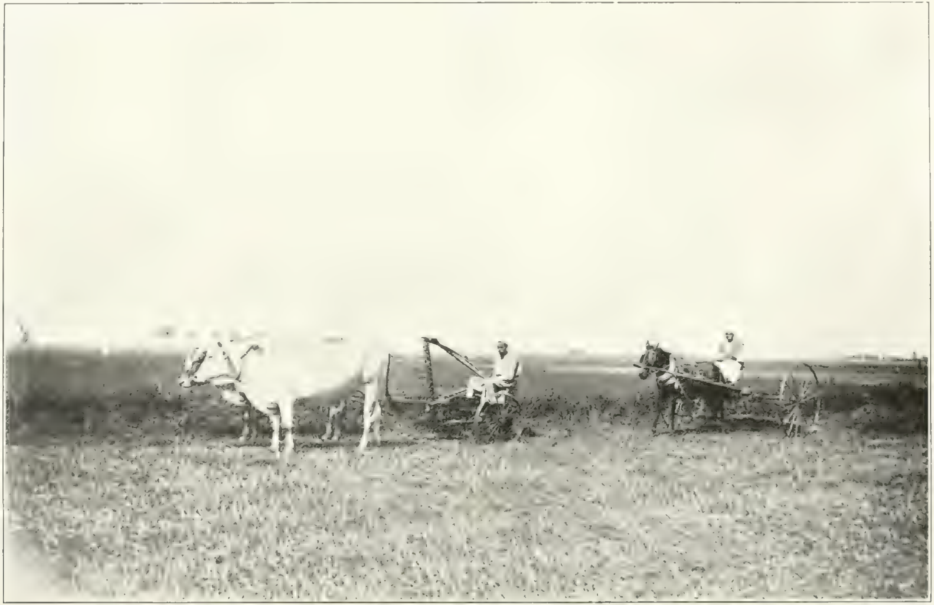


Fig. 2.—Plant of Saida Berseem in Flower, May 1, 1901. Reduced to Two-sevenths Natural Size.



AMERICAN MOWING MACHINE AND RAKE IN A FIELD OF BERSEEM ON THE ESTATE OF MR. BEYERLÉ AT BORDEIN, EGYPT.

LOADING TRAINS WITH BERSEEM HAY ON ESTATE OF MR. BEYERLE AT BORDEIN, EGYPT.

PRESSES AND KETTLES USED IN CHAUTAUQUA GRAPE DISTRICT.

U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN No. 24.

B. T. GALLOWAY, Chief of Bureau.

THE MANUFACTURE AND PRESERVATION OF UNFERMENTED GRAPE MUST.

BY

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Expert in Charge of Viticultural Investigations,
POMOLOGICAL INVESTIGATIONS.

Issued November 6, 1902.

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1902.

LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief,
Washington, D. C., July 7, 1902.

Sir: I have the honor to transmit herewith a paper entitled "The Manufacture and Preservation of Unfermented Grape Must," and respectfully recommend that it be published as Bulletin No. 24 of the Bureau series. The paper was prepared by Mr. George C. Husmann, Expert in Charge of Viticultural Investigations, and was submitted by the Pomologist.

Respectfully,
B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

PREFACE.

This bulletin gives the results of recent investigations undertaken by Mr. George C. Husmann, Expert in Charge of Viticultural Investigations, of this office. The manufacture and preservation of unfermented grape must is a subject that is attracting much attention at present and is of vital interest to both manufacturers and consumers.

Mr. Husmann has made a careful investigation of the industry in both its economical and commercial aspects, and the bulletin is designed to aid both manufacturer and consumer in preparing and utilizing a product of the grape that is of most important economic value.

G. B. Brackett,
Pomologist.

Office of the Pomologist,
Washington, D. C., June 24, 1902.

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THE MANUFACTURE AND PRESERVATION OF UNFERMENTED GRAPE MUST.

INTRODUCTION.

The use of unfermented grape juice is of very ancient origin, being undoubtedly as old as the art of wine making. The industry of manufacturing unfermented grape must on an extensive scale for a general market is, however, as yet in its infancy, as is exemplified by the diversity of the apparatus used in the various factories. Each manufacturer seems to have had a different conception and to have constructed his machinery according to his own ideas.

It is the purpose of this publication to describe the most economical and successful methods of manufacturing must and to discuss its uses and effects on the system, together with the outlook for the commercial success of the industry.

HISTORICAL NOTES.

Galienus, the Greek physician and writer, says (A. D. 131):

> A good many Asiatic wines were stored in bottles, which were hung in the corner of the fireplaces, where, by evaporation, they became old and dry. This process was called fumarium.

The Greeks had two kinds of wine—the protoplon, or first juice of the grape before pressing, and the denterion, or pressed juice. The Romans called them vinum primarium and vinum secondarium. Some of them drank the juice before fermentation had started, and called it mustum; after the must had been through a heating process (called reduction nowadays), they called it frutum; and when after long heating it had been reduced to one-half or one-third its original volume, they called it sapa. This was used by the Romans on their bread, and was the equivalent of what we now call sirup.

In Europe physicians often send their patients to the wine-growing districts during vintage time to take daily rations of unfermented must as it comes from the crusher. This, however, restricts its use to only one season of the year and to the immediate vicinity of wine districts or to individuals strong enough to undertake a journey.

Of late years extended efforts have been made to keep the must unfermented and put it up in such shape that it can be used anywhere and at all times of the year.

Until recently the use of must was almost exclusively restricted to medicinal purposes. Unrestricted use has been delayed on account of a lack of special knowledge underlying the principles of the process of manufacture and of skill in their application, resulting in many failures, thus making the production of a good article uncertain and very expensive, and inducing some unscrupulous persons to use injurious preservatives to cheapen the cost of manufacture. It is well known that pure must is healthful and nutritious, but with the addition of chemical preservatives it becomes injurious in proportion to the amount and kind of preservative used.

COMPOSITION OF THE GRAPE.

The grape contains 15 to 35 per cent of sugar (Balling's scale), about 2 to 3 per cent of nitrogenous substances, and some tartaric and malic acids. The skin contains tannin, cream of tartar, and coloring matter. The seeds contain tannin, amylaceous matters, and fat. The stems contain tannin, divers acids, and mucilaginous matter. The comparative composition of the different parts of the fruit determines the value of must made from any grape.

CAUSES OF FERMENTATION.

It is well known that grapes and other fruits when ripe have the invisible spores of various fungi, yeast (ferments), and bacteria adhering to them. When dry these are inert, but after the grapes are crushed and they are surrounded by the must they become active and begin to multiply. If the must is warm, the changes take place rapidly; if, on the other hand, it is cool, the change is slower. But in either case, if left alone, the organisms increase until the must ferments. The most favorable temperature for fermentation is between 65° and 88° F. Cold checks, but does not kill, the ferment. This fermentation, now commonly called the elliptic yeast, changes the sugar in the grape to alcohol and carbonic acid gas, and is the leading factor in converting must into wine; hence it will be readily seen that to keep unfermented must sweet, fermentation must be prevented, and to be salable the product must be clear, bright, and attractive.

METHODS OF PREVENTING FERMENTATION

Fermentation can be prevented in either of two ways:

(1) By chemical methods, which consist in the addition of germ poisons or antiseptics, which either kill the germs or prevent their growth. Of these, the principal ones used are salicylic, sulphurous, boracic, and benzoic acids, formalin, fluorides, and saccharin. As these sub-

stances are generally regarded as adulterants and injurious, they should not be used.

(2) Mechanical means are sometimes employed. The germs are either removed by some mechanical means, such as a filtering or a centrifugal apparatus, or they are destroyed by heat, electricity, etc. Of these, heat has so far been the most practical.

When a liquid is heated to a sufficiently high temperature all organisms in it are killed. The degree of heat required, however, differs not only with the particular variety of organisms, but also with the liquid in which they are held. Time is also a factor. An organism may not be killed if heated to a high temperature and quickly cooled. If, however, the temperature is kept at the same high degree for some time, it will be killed. It must also be borne in mind that fungi, including yeasts, exist in the growing and the resting states, the latter being much more resistant than the former. A characteristic of the fungi and their spores is their great resistance to heat when dry. In this state they can be heated to 212° F. without being killed. The spores of the common mold are even more resistant. This should be well considered in sterilizing the bottles and corks, which should be steamed to 240° F. for at least fifteen minutes.

Practical tests so far made indicate that must can be safely sterilized at from 165° to 176° F. At this temperature the flavor is hardly changed, while at a temperature much above 200° F. it is. This is an important point, as the success of an enterprise of this character depends entirely upon the flavor and quality of the product.

Such a vast difference exists in the methods pursued in California and in the Eastern States that a description of each is here given.

PROCESS USED IN CALIFORNIA.

This method, as described in Bulletin No. 130 of the California Experiment Station, is in substance as follows: Only clean and perfectly sound grapes, preferably those having a high natural acidity, picked and handled when cool, should be used. This fruit should not be too ripe or the must will be too sweet and be difficult to clarify. The grapes are pressed immediately and the juice is run into clean, sterilized puncheons or other receptacles. If the must is 59° F. or under, it may be left to settle for twenty-four hours or more. This rids the juice of most of the floating solid matter and facilitates subsequent filtering. It is then passed through a continuous pasteurizer (see fig. 1) and heated to 175° F., and should come out not warmer than 77° F. when it is run directly by means of a block-tin pipe into fresh vessels. For this purpose sterilized puncheons or other casks may be used, although casks or vats of metal, lined with enamel, would be better.

The greatest care must be taken to avoid contamination of the must as it flows from the pasteurizer. The ends of the block-tin pipe should be plunged into boiling water in changing from one package to another, and should not touch the hands or any exposed surface. The package should be closed with a sterilized bung as soon as full. After the must has settled some days, or even weeks, it is ready for filtering. This filtration is best accomplished by means of a filter so constructed that the must passes upward through the filtering medium under pressure. Such a filter is seen in fig. 2. This filter consists essentially of two shallow bowls clamped together, mouth to mouth, with the filtering medium between them. The unfiltered must enters the lower bowl through the pipe on the right of the figure, passes through the filtering medium into the upper bowl, and makes its exit, when clear, through the faucet a little to the left of the middle of the figure. The small faucet at the bottom of the lower bowl is for the purpose of cleaning the filter. Occasionally when filtration becomes slow, this faucet is opened for a few minutes. This allows the sediment accumulated at the bottom to escape and at the same time the entering must takes a rotary motion in the lower bowl, thus clearing off the surface of the filtering medium, so that when the clearing faucet is closed filtration proceeds as before. On a large scale a filter press such as is used in large wineries and in beet-sugar factories might be conveniently used.

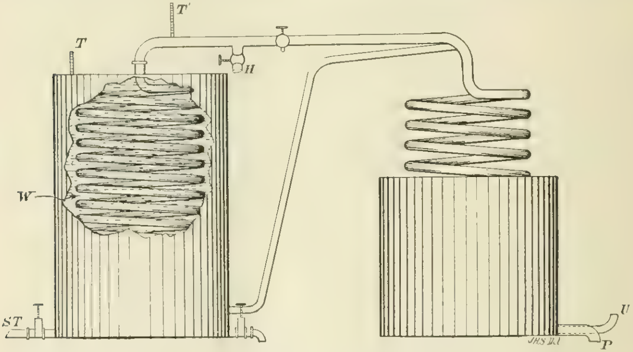

FIG. 1.—Continuous Pasteurizer: *ST*, Steam pipe. *H*, Outlet for hot pasteurized must. *U*, Inlet for unpasteurized must. *W*, Water bath. *P*, Outlet for cooled pasteurized must. *TT'*, Thermometers.

The must should be bottled as it flows from the filter, corked immediately, and sterilized as soon as possible, preferably within twenty-four hours. On account of recontamination during filtering, a final sterilization must be made after the bottles are corked. This is accomplished by means of a bottle sterilizer.

A simple and efficient form of sterilizer is shown in fig. 3. It consists of a wooden trough, provided with a wooden grating placed about 2 inches from the bottom. The filled bottles are placed in wire baskets which rest upon the grating. The trough should contain enough water to submerge the bottles and be kept at 185° F. by means of a steam coil beneath the grating. It requires fifteen minutes for the must at the bottom to acquire that temperature. For packages of other sizes it is necessary to make a test with a bottle of must in which a thermometer has been placed, in order to determine how long it takes for the entire contents of the bottle to reach the required temperature. Sterilization in bottles should be conducted at a temperature at least 10° F. lower than that reached in the continuous pasteurizer. If the final heating is higher than the first, it may cause a precipitation of solid matter, which will make the must in the bottles cloudy.

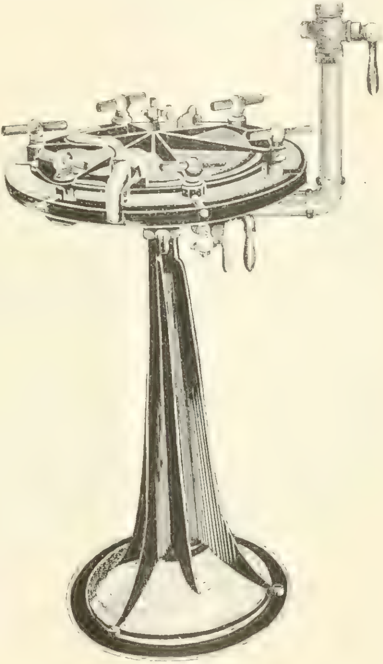

FIG. 2.—Filter for clarifying must.

During the sterilization in bottles the corks are liable to be expelled by the pressure developed. To prevent this they may be tied down with strong twine, but it is a great saving of time and labor to use some such contrivance as illustrated in fig. 3. Must so sterilized will keep unchanged for years, or until the bottles are opened.

No matter how carefully all previous work may be done, there is still danger of mold germs getting into the liquid through the corks, especially if a poor quality of corks be used. This can be prevented by dipping the necks of the bottles into heated paraffin before putting on the caps or by sealing over the corks with sealing wax.

The quality and character of the grape must will vary greatly with the quality of the grapes used, and a pleasing effect may be had by the blending or mixing of the must of two or more varieties of grapes. The color of the must will always be white or yellowish, with the exception of that from such varieties as the Bouschets, which have a red juice. Red must can be obtained by a modification of the process described. If the must is allowed to pass through the continuous pasteurizer and flow out hot into a vat containing the skins of red grapes, almost any desired depth of color may be obtained, depending on the variety of grapes used and the time during which the hot must is left on the skins. Must thus prepared differs in other respects than color from the white must, various substances, especially tannin, being extracted from the skins, making the composition more like that of red wine, but containing sugar instead of alcohol. In some instances such an article will be preferred for medicinal use.

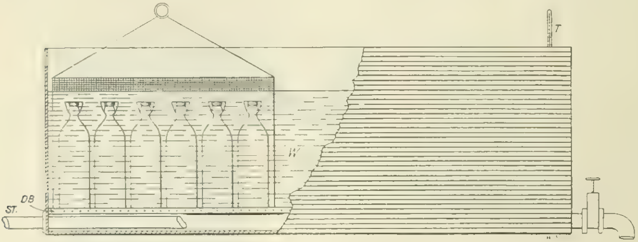

FIG. 3.—Cork clamp and pasteurizer for must in bottles: *DB*, Double bottom. *ST*, Steam pipe. *W* Water bath. *T*, Thermometer. (Bottle shows method of adjusting a cork holder of sheet metal.)

METHODS USED IN THE EASTERN STATES.

The methods used in the larger plants of the Eastern States, principally in the Chautauqua district on Lake Erie, are as follows:

The grapes are run through a combined crusher and stemmer in the upper story of the building, passing through wooden chutes to three aluminum kettles directly underneath. (See Frontispiece.) These kettles have double bottoms, so that steam can be used for heating without coming in contact with the contents. They also have in them revolving cylinders which keep the crushed grapes thoroughly stirred while they are being heated to 140° F. This heating and stirring aids in getting more color out of the skins, the relative amount of juice obtained per ton of grapes is larger, and the must has more of the ingredients and taste of red wine, without containing any alcohol. These kettles are filled in rotation, namely: As soon as No. 1 is full, steam is turned on to heat it while No. 2 is being filled. By the time No. 2 is full No. 1 is hot. Steam is then turned on No. 2 while No. 3 is being filled, and No. 1 is emptied and ready to be filled again.

Underneath the kettles are the presses, which are of the hydraulic type. Into these the heated contents of the kettles are emptied and pressed. They are on wheels, and are run backward and forward for filling and emptying in regular rotation. From the presses the juice runs through pipes to aluminum kettles underneath, similar to those in which the crushed grapes are heated, except that they contain no revolving cylinders. (See fig. 4.) In these kettles the juice is heated to 165° F., skimmed, and run through a pasteurizer underneath at a temperature no lower than 175° F. and no higher than 200° F. From the pasteurizer the must is filled directly into freshly sterilized 5-gallon carboys, securely corked, and stored in the vaults until the juice has settled and cleared, after which the clear juice is carefully siphoned off, filtered, filled into bottles, and securely corked, undergoing a final pasteurizing in the bottles, as explained in describing the California method.

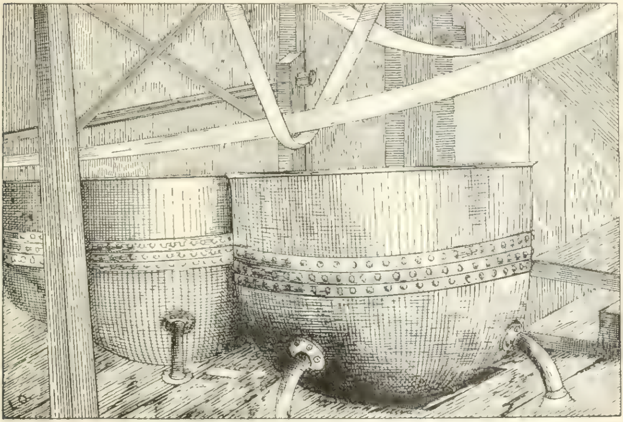

FIG. 4.—Aluminum kettles for heating crushed grapes.

By the method just described a dark-colored liquid is made, usually called grape juice. Nine-tenths of the eastern musts placed on the market are of this kind. Should it be desired to make a lighter-colored smooth article, the process should be modified by omitting the heating and stirring before pressing, the crushed grapes being pressed at once.

Attention should be called to the fact that the leading defects so far found with unfermented juice placed on the market are that much of it is not clear, a condition which very much detracts from its otherwise attractive appearance, and is due to two causes already alluded to—either the final sterilization in bottles has been at a higher temperature than the preceding one, or the juice has been improperly filtered or has not been filtered at all.

In other cases the juices have been sterilized at such high temperature that they have a disagreeable, scorched taste. It should be remembered that when an attempt is made to sterilize at a temperature above 195° F., one is treading on dangerous ground. Another serious mistake has been made in placing grape juice on the market in too large bottles, so that much of it becomes spoiled before it is used.

Grape must properly made and bottled will keep indefinitely if it is not exposed to the atmosphere or mold germs; but when a bottle is once opened it should, like canned goods, be used as soon as possible to keep it from spoiling.

HOME MANUFACTURE.

Friends who are fortunate enough to have a small patch, perhaps only an arbor, of grape vines often tell us: "We have so many grapes we do not know what to do with them." The surplus may be used to make unfermented grape juice. The following recipe will enable anyone to make it:

Use only clean, sound, well-ripened grapes. If an ordinary cider mill is at hand, it may be used for crushing and pressing, or the grapes may be crushed and pressed with the hands. If a light-colored juice is desired, put the crushed grapes in a cleanly washed cloth flour sack and tie up. Then either hang up securely and twist it, or let two persons take hold, one on each end of the sack, and twist, when the greater part of the juice will be expressed. Then gradually heat the juice in a double boiler or a large stone jar in a pan of hot water at a temperature of 180° to 200°—never above 200° F. It is best to use a thermometer, but if there be none at hand, heat the juice until it steams, but do not allow it to boil; put it in a glass or enameled vessel to settle for twenty-four hours; carefully drain the juice from the sediment, and run it through several thicknesses of clean flannel, if no other filter be available. After this, fill into clean bottles. Do not fill entirely, but leave room for the liquid to expand when again heated. Fit a thin board over the bottom of an ordinary wash boiler, set the filled bottles (ordinary glass fruit jars are just as good) in it, fill in with water around the bottles to about an inch from the top of them, and gradually heat until it is about to simmer. Then take the bottles out and cork or seal immediately. It is a good idea to take the further precaution of sealing the corks over with sealing wax, to prevent mold germs from entering through the corks. Should it be desired to make a red juice, heat the crushed grapes to not above 200° F., strain through a clean cloth, set away to cool and settle, and proceed the same as with light-colored juice. Many people do not even go to the trouble of letting the juice settle after straining it, but reheat and seal it up immediately, simply setting the vessels away in a cool place in an upright position, where they will be undisturbed and the juice allowed to settle, and when wanted for use the clear juice is simply taken off the sediment. Any person familiar with the process of canning fruit can also preserve grape juice, for the principles involved are identical.

Must is a valuable product, and many pleasures and comforts may be derived from its use. It contains a large part of the valuable ingredients of both fresh and canned grapes, and can be used in many more ways and for many more purposes.

USES OF UNFERMENTED MUST.

The uses of unfermented must are many. It is used in sickness, convalescence, and good health; as a preventive, as well as a cure. By the young, by persons in the prime of life, and by those in old age it is used at all seasons of the year, whether that season be warm or cold, wet or dry. It is used in churches for sacramental purposes; at soda fountains as a cool and refreshing drink; in homes, at hotels, and at restaurants as a food, as a beverage, as a desert, and in many other ways. When people become accustomed to it they rarely give it up; hence the manufacture of grape juice will probably increase enormously as the years go by.

Dr. Miradow Minas, at Jurjew (Dorpat), experimented on himself with pasteurized must during fifty-three days, dividing the time into thirteen periods. He took the following daily rations of food: Water, 2,100 cubic centimeters; meat, 3,000 grams; tea, 9 grams; meat extract, 5 grams; light bread, 500 grams; sugar, 85.38 grams. During the first two and the last two periods he took no must. In the third period he took 300 cubic centimeters daily; in the fourth, 600 cubic centimeters, and thus gradually increased the portion until 1,250 cubic centimeters in the seventh period, which lasted five days, were taken. After this he gradually decreased the portion until 250 cubic centimeters were used in the eleventh period.

The conclusions reached were:

> Through the rational addition of pasteurized must to a satisfactory mixed diet the cleavage of protein in the body is diminished. The power to protect protein is due to the grape sugar present, and is dependent not alone upon the quantity of grape juice taken, but also upon the kind and amount of protein consumed. The richer the food in easily digested protein the greater the power of the grape juice to protect protein. With an abundant diet the more or less long continued use of pasteurized must tends to induce a gain in body weight. The material gained may consist of nitrogenous substance or fatty tissue. When 300 to 750 c. c. of pasteurized grape juice is consumed daily the resorption of nitrogenous material is increased. When larger quantities are consumed (1,000 to1,250 c. c.) the resorption of nitrogen diminishes somewhat, but in all cases it is better than on the same diet without the addition of pasteurized grape juice. The consumption of 300 to 500 c. c. of unfermented grape

must daily diminishes intestinal fermentation. Larger quantities are either without effect on the intensity of intestinal fermentation or by diminishing the resorption of nitrogen increase the amount of ether sulphates excreted in the urine.

It should be said in considering the results obtained by Minas, that practically the same favorable results attributed to the use of grape juice have been found to follow the consumption of cane sugar. It therefore seems not unlikely that the value of grape juice as a food depends chiefly on the sugars present, though it should be remembered that the agreeable flavor undoubtedly increases the appetite and very probably increases the flow of digestive juices. Furthermore, grape juice offers the sugars in a reasonably dilute as well as a palatable form.

A FEW GOOD RECIPES.

GRAPE NECTAR.

Take the juice of two lemons and one orange, one pint of grape juice, one small cup of sugar, and a pint of water. Serve ice cold. If served from punch bowl, sliced lemon and orange add to appearance.

AN INVALID DRINK.

Put in the bottom of a wineglass two tablespoonfuls of grape juice; add to this the beaten white of one egg and a little chopped ice; sprinkle sugar over top and serve. This is often served in sanitariums.

GRAPE PUNCH.

Boil together one pound of sugar and half pint of water until it spins a thread; take from the fire and when cool add the juice of six lemons and a quart of grape juice. Stand aside overnight. Serve with plain water, apollinaris, or soda water.

GRAPE SHERBET.

For eight persons, mix one pint of grape must, juice of lemon, and one heaping teaspoonful of gelatin, dissolved in boiling water; freeze quickly; add beaten white of one egg just before finish.

GRAPE ICE CREAM.

One quart of must, one quart of cream, one pound of sugar, and the juice of one lemon.

SYLLABUB.

One quart of fresh cream, whites of four eggs, one glass of grape must, two small cups of powdered sugar; whip half the sugar with the cream, the balance with the eggs; mix well; add grape juice and pour over sweetened strawberries and pineapple or oranges and bananas. Serve cold.

BOHEMIAN CREAM.

One pint thick cream, one pint grape-juice jelly; stir together; put in cups and set on ice. Serve with lady fingers.

Besides the recipes just given, many more are enumerated by the manufacturers, such as grape ice, grape lemonade, grape water ice, grape juice and egg, baked bananas, snow pudding, grape gelatin, junket and grape jelly, tutti frutti jelly, grape float, grape jelly, grape juice plain, grape soda water, and scores of others.

ANALYSES OF GRAPE MUST.

The analyses of a California must, as published in Bulletin No. 130 of the California Experiment Station, and of Concord grape must analyzed by Mr. L. S. Munson, of the Bureau of Chemistry, U. S. Department of Agriculture, are appended herewith, and may be of interest:

	Concord.	California.
	Per cent.	*Per cent.*
Solid contents	20.37	20.60
Alcohol	None.	None.
Total acids (as tartaric)	.663	.53
Volatile acid	.023	.03
Grape sugar	18.54	19.15
Free tartaric acid	.025	.07
Ash	.255	.19
Phosphoric acid	.027	.04
Cream of tartar	.55	.59

The comparison between the two becomes all the more interesting from the fact that California musts are made from Vinifera, or the European grapes, whereas the commercial musts of the Eastern States are made almost exclusively from the Concord, a Labrusca, or American variety.

PRICES AND STATISTICS.

The average prices to consumers are as follows:

	Per case.
Cases of 1 dozen quart bottles	$4.50 to $6.00
Cases of 2 dozen pint bottles	4.75 to 6.25
Cases of 4 gallon bottles	5.00 to 6.00

One firm in 1901 used, in their manufacture, 8,000 gross of bottles. To fill these required 1,000 tons of grapes, 8,000 gross of corks, 1,100,000 caps, as many labels and wrappers, and 60,000 boxes. In the Chautauqua district alone about 300,000 gallons of unfermented must was made in 1901, and all those engaged in its manufacture are enlarging their plants.

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U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN No. 25.

B. T. GALLOWAY, *Chief of Bureau.*

MISCELLANEOUS PAPERS.

I. THE SEEDS OF RESCUE GRASS AND CHESS.
By F. H. HILLMAN, *Assistant, Seed Laboratory.*

II. SARAGOLLA WHEAT.
By DAVID G. FAIRCHILD, *Agricultural Explorer.*

III. PLANT INTRODUCTION NOTES FROM SOUTH AFRICA.
By DAVID G. FAIRCHILD, *Agricultural Explorer.*

IV. CONGRESSIONAL SEED AND PLANT DISTRIBUTION CIRCULARS, 1902–1903.

BOTANICAL INVESTIGATIONS AND EXPERIMENTS
AND
SEED AND PLANT INTRODUCTION AND DISTRIBUTION.

ISSUED JULY 18, 1903.

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BUREAU OF PLANT INDUSTRY.

Beverly T. Galloway, *Chief of Bureau.*

BOTANICAL INVESTIGATIONS AND EXPERIMENTS.

Frederick V. Coville, *Botanist.*

SEED AND PLANT INTRODUCTION AND DISTRIBUTION.

A. J. Pieters, *Botanist in Charge.*

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MISCELLANEOUS PAPERS.

B. P. I.—29. B. I. E.—52.

I.—THE SEEDS OF RESCUE GRASS AND CHESS.[a]

By F. H. Hillman, *Assistant, Seed Laboratory, Botanical Investigations and Experiments.*

There have recently been received at the Seed Laboratory from different States of the South several samples of the seed of chess, or cheat (*Bromus secalinus*), which had been offered for sale as rescue grass (*Bromus unioloides*). Notwithstanding the close botanical relationship of chess to rescue grass, and the fact that the former is sometimes, like the latter, employed as a hay crop, the difference between the two is so considerable that, if the seeds of both are to be handled in the trade, they should pass under their true names.

The brome grasses belong to the genus Bromus and vary widely in their agricultural value. One of them, the awnless brome grass (*Bromus inermis*), also called smooth and Hungarian brome grass, is highly valued in the West as a drought-resisting forage and hay plant. Rescue grass bears a somewhat similar relation to the agriculture of the South, while the chess is less valuable than either. Some value is assigned to it in certain localities, but it has been long and widely recognized as a most troublesome weed. The frequency with which it occurs in grain fields has led to the erroneous belief, adhered to by many farmers even to the present day, that chess is a degenerated form of wheat. Chess seeds are often abundant among the seeds of the cereal grains and the larger grass seeds, and sometimes occur with red clover seed.

With the aid of specimens, or descriptions, there should be no difficulty in distinguishing the seed of rescue grass from that of chess. The differences between the seed of chess and that of its near ally, *Bromus racemosus*, are more difficult to detect; but from a practical standpoint this is not so important, since the two plants are very similar in habit, and it is probable that in many localities the latter would prove quite as undesirable as chess.

---

[a] For some reason confusion has arisen in the Southern States regarding rescue grass and chess. Seed of the latter, which, though occasionally grown as a forage crop, is ordinarily a grain-field weed, has been offered for sale repeatedly under the name of the former, which is a valuable forage grass; and it has been thought desirable to issue a brief description of the two, so that both seedsmen and purchasers may be able to distinguish them. The present paper is therefore presented. It was prepared under the direction of Mr. A. J. Pieters, Botanist in Charge of the Seed Laboratory.—Frederick V. Coville, *Botanist.*

Bromus unioloides (Willd.) H. B. K.

(*B. schraderi* Kunth.)

RESCUE GRASS. SCHRADER'S BROME GRASS. ARCTIC GRASS.

Florets, or "seeds,"[a] 11 to 25 mm. (½ to 1 inch) long, strongly compressed from the sides, sharply keeled along the back, lanceolate as viewed from the side, the apex tapering and usually tipped by a short awn, at the base of which the glume is slightly notched; margins of the glume membranous-edged and usually not infolded except at the base; veins 4 or 5 on each side of the midnerve, or keel, evident as narrow ridges; palea two-thirds to three-fourths the length of the glume, which wholly incloses it; grain folded lengthwise and tightly clasping the infolded center of the palea. The florets are light or yellowish brown or straw-colored, often greenish and sometimes purplish. The surface varies from smooth to very finely rough-hairy, the latter condition being particularly evident on the veins and pedicel. When spread thinly on a level surface the seeds lie on one of the flattened sides. (Fig. 1.)

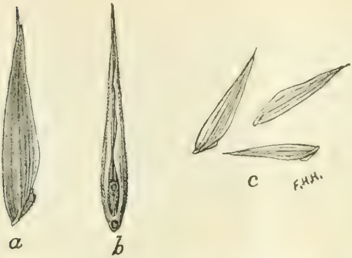

FIG. 1.—Florets, or seeds, of rescue grass (*Bromus unioloides*): *a*, side view of a seed; *b*, front view of a seed, showing the palea and pedicel between the edges of the glume; *c*, seeds, natural size.

Bromus secalinus L.

CHESS. CHEAT. WILLARD'S BROME GRASS.

Florets about 7 mm. (¼ to $\frac{5}{16}$ inch) long, exclusive of the awn, which varies from 1 to 3 mm. in length, not compressed, cylindrical or somewhat spindle-shaped, obtuse at the apex; glume notched at the apex above the insertion of the awn; margins more or less infolded below the middle, narrowly or scarcely membranous-edged above the middle, usually not at all flaring at the apex; veins 3 on each side of the midnerve, very indistinct; palea equal to the glume, deeply grooved conformably with the grain, the keels hispid-ciliate and partially or wholly exposed; grain equal to the glume and palea, often exposed at the apex of the floret, deeply grooved, reddish brown, sometimes occurring free from the glume and palea. The florets are light or dark brown and mostly smooth, and sometimes have a slight diffused luster under the lens. (Fig. 2.)

---

[a] The seeds of these grasses in a commercial sense consist of the grain inclosed in the chaff—i. e., glume and palea.

The more evident characters by which rescue-grass seed and chess seed may be distinguished upon comparison are as follows:

Rescue-grass seeds, being strongly compressed, lie only on one side when resting on a level surface; and thus appear lance-shaped or broadly awl-shaped, tapering uniformly to a sharp, short-awned point. In contrast, the chess seeds are from little more than one-fourth to one-half as long, more robust, not evidently flattened, nearly cylindrical, grooved along one side, abruptly pointed, the apex with a very short or somewhat longer awn or awnless. When resting on a level surface they may lie slightly at one side of the midvein of the back, exposing to view the grooved face and a part of one side, or they may lie on the grooved face, showing the back. They more rarely rest directly on the back. Furthermore, the general color of a sample of chess is much darker brown than one of rescue-grass seed.

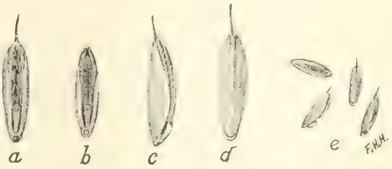

FIG. 2.—Seeds of chess (*Bromus secalinus*): *a* and *b*, front views; *c*, edge view; *d*, back view of seeds; *e*, seeds, natural size. The first three show the palea and pedicel.

Bromus racemosus L.

UPRIGHT CHESS.

Florets about 9 mm. (⅓ inch) long, exclusive of the slender awn, which varies from 4 to 9 mm. in length, similar to those of *Bromus secalinus* in general form. The glume is broader than in *B. secalinus* and usually more arched at the margins; edges sometimes membranous, especially at the apex, which is notched above the insertion of the awn and often flaring; veins sometimes distinct; palea shorter than the glume, broadly hollowed or grooved, its keels more or less exposed and hispid-ciliate; grain shorter than the palea or at least covered by it, more broadly grooved than in *Bromus secalinus*. The

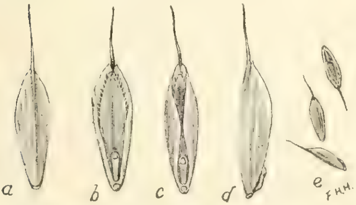

FIG. 3.—Upright chess (*Bromus racemosus*): *a*, back view; *b* and *c*, front views, and *d*, side view of seeds; *e*, seeds, natural size. Views *b* and *c* show the palea and pedicel.

florets are smooth or finely roughened and straw-colored or light brown. (Fig. 3.)

These seeds are as easily distinguished from rescue-grass seeds as are those of chess. They are most readily distinguished from chess seeds by the broader glume, longer awn, and shorter palea and grain.

The following statement of the relative values of rescue grass and chess is contributed by Mr. Carleton R. Ball, Assistant Agrostologist of the Department of Agriculture:

> Rescue grass was introduced into the South some fifty years ago and has since been widely cultivated. Its chief value is for winter and early spring grazing. It is very hardy, and makes a luxuriant and rapid growth throughout the winter under favorable conditions. Although it is an annual plant, it is said to become a short-lived perennial under close grazing, which prevents the production of seed. In ordinary practice the grass is allowed to reseed itself each season. Where grazed, stock should be taken off long enough to allow seed to ripen in the early summer. If it is cut for hay in March, the aftermath will usually reseed the ground. A summer crop may be grown on the same ground if it be taken off early enough to allow the young plants to begin their growth in the fall. Rescue grass is best adapted to rich, loamy soils. On light, poor soils it is probably inferior to rye or oats for pasturage or hay.
>
> Chess is becoming more and more common as a weed in southern wheat fields. In some parts of the country, particularly in the Northwest, it has considerable value as a hay crop. A similar value has sometimes been claimed for it in the Southern States, but the general opinion is quite the opposite. It often appears abundantly where grain crops have been killed by unfavorable conditions. There are, however, other catch crops with fewer weedy tendencies and greater forage value which may be employed in such cases. In feeding value, as indicated by chemical analyses, chess ranks lower than most grasses, including rescue grass. This has been proved to be true of it even in the Northwest, where it is so largely used for hay.

II.—SARAGOLLA WHEAT.

By **David G. Fairchild**, *Agricultural Explorer.*

Italy is the land of macaroni, and the best of this remarkable food product in the world is to be had in Naples. There seems to be an agreeable flavor about Neapolitan macaroni which is characteristic of it and which one does not find in the French or Spanish, or even in the north Italian made product. Macaroni a la Napolitona, with its sauce made from the plum-like tomatoes that one sees hung up to dry everywhere on the walls of the narrow streets of Naples, must be tasted within sight of Vesuvius before one can judge this national Italian dish.

In searching for a reason for this superiority of the Neapolitan macaroni, the writer's attention was called to the fact that an especially fine-flavored variety is made from a native wheat called Saragolla, and that this variety is made only in small quantities. Paradoxical as it may seem to the American who is ready to pay any price for the best food products, the very finest quality of Italian macaroni is not often exported to America. This is a statement which the writer feels warranted in making after interviewing some of the largest exporters of macaroni, as well as the famous producers of Gragnano and Torre Annunziata. The reason for this anomalous condition of the trade lies in the fact that the very finest kind of macaroni keeps only a few months, while the commonly exported article remains good for a year.

In the days before the macaroni trade had assumed the proportions that it now occupies in the commerce of Italy it was supposed that only the hard wheats of Apulia and Sicily could be used in its manufacture, but as the demand for this foodstuff increased the hard wheats of other countries were imported. Among these wheats those from southern Russia, the so-called Taganrog varieties, proved best suited to the demands of the manufacturer. They are now imported in large quantities every year, and the majority of the macaroni is said to be made from these imported wheats. Nevertheless the manufacturers still consider the durum wheat of the province of Apulia to have a flavor superior to the imported varieties, and they place the so-called Saragolla wheat at the head of all macaroni wheats so far as the production of a fine-flavored product is concerned.

The market price of the Saragolla wheat ranges from 1.25 to 1.75 lire per quintal higher than that charged for the best Taganrog sorts, even after a duty of 8 lire per quintal has been paid; and the reason for this higher price is not so much in the better flavor of the Italian wheat as in the greater yield of semola per given weight of grain. The semola makers get proportionately more salable product out of the Saragolla wheats than they do out of those from Taganrog or other sources of import.

It is from these south Italian wheats that the most delicate macaroni of Naples is made, and the connoisseur who wants to live well in southern Italy insists on having his macaroni made from the hard wheats of Apulia. It makes little difference to him that the more delicate variety does not keep so well and more quickly falls a prey to the attacks of insects. What he wants is the fine flavor.

Like the export Munich beer, or the canned Danish butter, macaroni designed for sale in America, it is said, must be especially prepared, and the tougher gluten of the Taganrog wheat renders the macaroni that is made from it better suited for the export trade. Mixtures of the imported and the Saragolla wheat are also often made, it is said.

The region south of Foggia near the Adriatic coast of southern Italy, where this best Italian macaroni wheat is grown, is one of the driest in the country, having an annual rainfall of only 446.7 mm., or about 17.59 inches. In this respect it is but little superior to some of the Russian wheat regions, which have, according to Carleton, about 15 inches.

Whether or not the generally acknowledged superiority of Italian macaroni, even that made from Taganrog wheat, is due to the water used in its manufacture is a question which would probably require much study to answer. It is difficult to understand how any bacteria present in the water used to make the paste can influence the flavor, for it is employed while boiling hot. There is a possibility, however, that in the cellaring process, or the preliminary drying in the open air, the freshly made macaroni may be affected by the bacteria with which the air of the moist cellars and exposed drying places must be filled.

Although perhaps superfluous to the American manufacturer of macaroni, a description of the process of making it as followed in Gragnano and Torre Annunziata may have some interest as being that pursued by some of the most famous factories in the world.

To travelers in Italy these towns are pointed out as nestling at the base of Vesuvius and forming scarcely more than suburbs to the big city of Naples. They are dependent upon the manufacture of the pastas, as the various types of macaroni are called, and hand-worked mills stand side by side with those run by steam; all squeezing out long strings of yellow paste, which are cut and hung up on poles to dry. The housetops, courtyards, narrow streets, and hillsides are covered with thousands of reed poles bending under the weight of yellow macaroni, and scattered over the ground on mats lie different sorts of short-shaped pastas.

The process of manufacture seems exceedingly simple, but there may, for all that, be secrets of the trade. As described in general by the manager of a large mill in Torre Annunziata the mode followed by the steam factories is as follows:

The durum wheat is ground into semola and sieved to remove the starchy part of the grains and leave the clear, light amber, or glutinous part. Three or four grades of quality are made, and these depend on the size of the sieve meshes.

The semola is put into a special iron mixer, shaped like an old-fashioned artillery mortar, except that it is square instead of cylindrical, and furnished in the bottom with special screw-shaped fans with which to stir the paste or dough. Boiling water is added to the semola and the dough is mixed for about seven minutes. The mass is then put on a flat, circular kneading board and kneaded by two sharp-edged parallel beams, which rise and fall as the table turns and press into the dough as they descend. A few minutes of kneading are sufficient and the homogeneous dough is then put into the cylinder and the piston descends upon the mass, forcing it in strings slowly through the perforated plate at the bottom. Fifteen minutes are required to convert the gallons of dough into thousands of feet of yellow macaroni. The yellow color is produced by the use of saffron, of which powder a very small quantity is put into each batch of dough.

As soon as the strings of fresh paste which issue continually from the die are of the proper length they are cut and thrown over a reed pole and carried into the sunlight, if the weather is fair, or into sheltered terraces, protected by curtains from the rain, if the weather is unfavorable. On bright days the strings of macaroni are exposed to the sunlight only two hours. They must be dried out only slightly before being cellared for the night in dungeon-like underground vaults similar to the Bavarian beer cellars.

For twelve hours or more the poles of macaroni are kept in these damp places, until the dough has become moist and pliable again and the strings have lost the brittleness that the exposure to the sunlight has given them. From the cellars the poles are carried to shaded storehouses, open on all sides to the air but not lighted from above. Here, in great masses of millions of strings, they hang for several days—from eight to twenty being required, depending upon the dryness of the atmosphere. According to the statements of the manager of a factory this process of drying is necessary to give to the brittle paste a horn like toughness and fit it to withstand the rough handling to which it will be subjected without breaking into small pieces.

In all this simple process the one point at which bacteria might have a chance to play a rôle is in the first drying, cellaring, and subsequent slow drying in the shade. The theory that the water is responsible for the flavor must rest, it seems to the writer, on other than bacterial grounds, for from the appearance of the tank which supplied the hot water the inference is easy that the water is chalybeate, for the tank was incrusted with lime.

If, aside from the superiority of the macaroni of Gragnano, which is made from Taganrog wheat, a specially fine flavor is produced by the use of Saragolla grain, the growers of durum wheats in America deserve to have their attention called to this variety and be given an opportunity to test it on a reasonably large scale. The thin-skinned nature of the sort and its consequent greater semola-producing properties may not be maintained in all places in America, but regions may be found where these valuable qualities as well as the flavor are retained, and the wheat may prove, as it evidently does in Apulia, a profitable crop.

NAPLES, *November 9, 1902.*

B. P. I.—58. S. P. I. D.—35.

III.—PLANT INTRODUCTION NOTES FROM SOUTH AFRICA.[a]

By DAVID G. FAIRCHILD, *Agricultural Explorer.*

INTRODUCTION.

From the standpoint of an agricultural explorer South Africa is a land of newly introduced plants. Compared with old civilized countries like Egypt and Japan, it is poor in cultivated species that are suitable for introduction into America. Its native flora is rich, but the number of economic plants is small and the most important of these have been brought into Africa in comparatively recent times. Only one who has been bewildered by the hosts of cultivated native plants of the Malay Archipelago can fully realize the dearth of food plants of South Africa. The explanation is simple. The Kafirs and Hottentots were, like our American Indians, races of hunters, and lived mostly on the immense herds of game which roamed over the vast areas of grass land on the South African veldt. As these herds of antelope and other game diminished in numbers or disappeared the natives became stock raisers and counted their wealth by the number of cattle they owned. The cultivation of the soil, which in such lands as Java or Japan was the chief occupation of the people, played a small rôle among the blacks of Cape Colony, and in consequence few wild plants were brought into cultivation, and the staple food plants of other races, when introduced late in the history of the country, were accepted by the Kafirs and grown in a careless, slovenly manner. The mealies of the country are the maize plants from America. Cassava is the West Indian manihot. Kafir corn is the "Dura" of the Arabs.

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[a] Several South African wild plants have already found their way into cultivation as valuable ornamentals, but, as Mr. Fairchild has pointed out in the present Bulletin, the South African flora is poor in economic species. There are some, however, that may prove valuable additions to the forage resources of our Southwest, and the grapes and the pineapples described will certainly be worth a careful trial.

The plants and seeds sent through the kindness of Mr. Lathrop have been distributed in such a manner that we shall be able to watch the growth of these plants in the United States.—A. J. PIETERS, *Botanist in Charge of Seed and Plant Introduction and Distribution, Washington, D. C., May 8, 1903.*

and rice and potatoes were practically unknown among their cultivated plants.

It is no wonder that a country in which the natives have neglected their indigenous fruits and grains, and in whose footsteps the early white settlers followed, should prove a land poor in cultivated plants that are worthy of introduction into the New World.

A few things have, however, been called to the writer's attention during a stay of some weeks in the country, and these have seemed worthy of writing about for the information of American cultivators.

SOME CAPE SEEDLING GRAPE VARIETIES.

It were strange if in so old and isolated a vine region as South Africa seedling varieties of the grape had not originated.

Mr. Eustace Pillans, at present in charge of the Government Wine Farm at Constantia, has called the writer's attention to three varieties which are either known to be Cape seedlings or are of doubtful Cape origin, and the department of agriculture of the colony has, with that liberality which characterizes it, offered to send in July next a quantity of cuttings of each to America.

THE RED HANEPOOT GRAPE.

The Red Hanepoot, which ranks as one of the best export table grapes from South Africa, and which is called by the late Mr. De Waal, vine expert of the Cape government, the Red Muscat of Alexandria, is described as a variety with large, loose bunches, a large oval berry, which is dark red when ripe and has a sweet and musky flavor. It requires a lime and clay subsoil, and its fruit ripens in the middle of the grape season.

The origin of the Red Hanepoot, I am told, is not known, but it is believed to be a seedling of the White Muscat, called at the Cape White Hanepoot, and Mr. Bioletti, wine expert at the Elsenburg Agricultural School, who was formerly connected with the California Experiment Station, assures me that it is probably of Cape origin, and so far as he knows is not grown anywhere in California. Its good shipping qualities and its excellence as a table grape will, Mr. Bioletti thinks, give it a place beside the Flame Tokay, from which it differs in its decided musky flavor. Its excellent eating qualities Mr. Lathrop and the writer had an opportunity of testing, and there can be no doubt of its desirability for Californian vineyards. Like the other Muscat varieties, it is difficult to graft successfully upon resistant American stocks, and at the Cape it has succeeded best upon a seedling variety of *Vitis rupestris* called "*Le Roux*," which is likewise of South African origin.

VITIS RUPESTRIS METALLICA.

Vitis rupestris metallica is the name given by the late Mr. De Waal to a resistant stock grown from American seed on the Government Wine Farm at Constantia. This is quite distinct, Mr. Bioletti says, from a French variety bearing the same name, and is another of the Cape productions which is worthy of the attention of California vineyardists. It was a chance seedling, like the Riparia Gloire de Montpellier stock so universally used, according to De Waal, in the Medoc vine region of France. In the Agricultural Journal for December, 1901, Mr. De Waal published the following statement in reference to the origin of this interesting variety, which is, according to Mr. Pillans, taking the lead all over the colony as a grafting stock for wine grapes:

> RUPESTRIS METALLICA.
>
> This variety is derived from one seedling stock selected at Groot Constantia from amongst thousands. It was picked out in the year 1894, and new stocks were multiplied as fast as possible by the single-bud or one-eye system of propagation. In 1896 a mother plantation of 3,500 vines was laid out. The combined plantations have this year (1901) given a return of 687,000 cuttings, exclusive of several cartloads of thin ends. As many other mother plantations of this variety have, during the past few years, been laid out in the Constantia and other districts, the old mother stock, selected in 1894, must this year have given rise to an output of several millions of cuttings. The Rupestris Metallica is a strong grower and will thrive well in any loose soil, loam, gravel, or sand, and also in dry, open, heavy soils; it can besides stand a fair amount of wet in loose soils. It forms an excellent graft bearer for all varieties of European vines, except the Hanepoot, and, possibly also, other members of the Muscat family. A large percentage of Hanepoot grafts will die back on it even after a very successful start, and as a stock for Muscat Hambourg its suitability is also doubted. It appears to answer fairly well as a graft bearer for Muscadel, but sufficient experience on this point has not yet been gained to recommend it unreservedly as a stock for that variety.

The latest verdict regarding this Metallica stock from Mr. C. Mayer, who has not been an enthusiastic believer in it, is that it is suitable for dry, light sandy soils, but not for heavy ones. It is remarkable for the ease with which the cuttings root and can be grafted upon. The proportion of failures among grafts upon this stock is said to be remarkably small, and when millions of grafts are concerned this item is an important one.

The vigorous nature of the Metallica is claimed by Mr. Pillans to impart to the graft a very remarkable productiveness, and certainly when compared at Groot Constantia with the same varieties grafted on other American stalks of French origin, the load of fruit on the metallica vines this season bore out Mr. Pillans's belief. Considered from the standpoint, then, of a quick-rooting, easy grafting, vigorous stock, which produces good bearing vines, the *Vitis rupestris metallica* is well worth an extensive trial in California.

VITIS RUPESTRIS LE ROUX.

The Muscat varieties of table grapes, which are among the best, do not generally thrive well when grafted on American phylloxera-resistant stocks, and vineyardists in California are, according to Mr. Bioletti, looking for a better variety of stock than those already in use.

In Cape Colony, two of the best table grapes, the White and Red Hanepoot sorts, are of the Muscat type, and in replanting the vineyards with resistant stocks, the ordinary Riparia and Rupestris varieties have proven uncongenial to these Muscat kinds.

In March, 1899, the Cape department of agriculture appointed a commission to investigate the causes of this failure of the Hanepoot grafts on American vines.

In their printed report members of this commission call attention to the Le Roux, a seedling variety of American parentage which originated in the Cape and which has proved a successful stock for the Hanepoot variety of Muscat grape, of which there are six-year-old plants growing in the colony.

This Le Roux grape is named after Mr. Le Roux, of Drakenstein, upon whose place the seedling was raised and first propagated. Such a stock which, although not yet thoroughly tested, promises to be well suited for Muscat varieties, deserves the attention of our vine growers.

FRUIT-BEARING HEDGE PLANTS.

The finest hedges in Natal are the evergreen amatungulas, which are made from the white-flowered, red-fruited *Carissa grandiflora*, a native of the colony. It is rare to find a fruit-bearing hedge, and of all those which the writer has seen the amatungulas are the most desirable. The genus *Carissa* contains a number of thorny, evergreen shrubs which bear pretty white flowers and edible red fruit.

On the markets in Durban the long, brilliant red fruit of the amatungulas is commonly sold; in fact, during January and February it is one of the commonest fruits to be seen in the stalls. Though variable in size and shape, it has generally an elongated form, with a distinct point, and the diameter of a good-sized Damson plum. The thin, red skin covers a pink flesh with a milky juice, which in flavor is sweet but lacks character, although much praised by European residents for use in making fruit salads.

To make an amatungula hedge, Mr. I. Medley Wood, the curator of the Durban botanic gardens, informs me, is a very simple matter. The seeds are sown in a seed bed, and when the young plants are 6 inches high they are transplanted to the place chosen for the hedge and set a foot apart, alternately in parallel rows, distant from one another a foot or more. As the plants grow they are trimmed into the desired hedge form, and the oftener they are trimmed the thicker they interweave their tough, thorny branches, making an impenetrable barrier for stock of all kinds. When in flower the white, jasmine-like blossoms show off strikingly against the dark background of foliage; and the red fruit which follows is quite as pretty. It is an interesting sight to see the children hunting up and down the hedges about the city houses for the ripe amatungulas, with which they fill their aprons.

A nearly related species of Carissa (*C. arduina* DC.) is one of the prettiest shrubs in the municipal gardens in Cape Town. Its symmetrical form and dark-green leaves and branches make it well worth a place on the lawn of any subtropical park, while its pendant red fruits, which look like large barberries, make a showy contrast to the dark background. These fruits, like the amatungulas, are filled with a milky-juiced flesh, and are not unpleasant to the taste, although they have no sprightliness of flavor.

Whether or not the genus has in it sufficient material from which, by breeding, a new superlative fruit plant can be produced, which at the same time will make good hedges, is a question for experiment.

RHODES GRASS.

At Groot Schur, Mr. Cecil Rhodes's estate, near Cape Town, there are several large grass fields of a species of chloris (*C. virgata* Sw.) grown from seed which Mr. Rhodes had collected in the eastern provinces of Cape Colony some years ago. Although, according to Professor MacOwan, the plant occurs commonly in the subtropical zone in other continents, from the fact that it was first brought into culture in South Africa by so noted a man as Mr. Rhodes it has been given the name of Rhodes grass.

Like other species of the same genus, this one sends out long, creeping stems, which lie flat on the ground, and from these the finger-like inflorescences arise. These stems lying on the ground are tough and hard and are likely to be of little food value, but the mass of leaves which is produced above them on good soil attains, it is said, a foot or more in height and has excellent feeding properties.

It does not seem likely that this species will prove more resistant to drought than many other grasses, for on the slopes of Table Mountain a patch was pointed out which was evidently not a success, and the only explanation for the failure was that the ground there was too dry. However, the planters to whom the steward of the estate has distributed seed have found the grass a valuable fodder plant, and there is such a local demand for the seed that a single sack was all that could be secured for trial in America. This quantity was given after application to the Chartered South African Company and to the steward of Groot Schur.

THE KAFIR PLUM AS A SHADE TREE.

Professor MacOwan, whose writings on South African plants are so well known, showed the writer a row of Kafir plum trees which, by his advice, were planted in the grounds of the Parliament building at Cape Town. He pointed out that, owing to the situation of the adjoining houses, they were subjected to the most violent cross winds, and that ordinary trees which had been tried there were unable to keep their shape. A "southeaster" which came up before leaving Cape Town permitted the writer to see how these trees were whipped and beaten about with the winds from Table Mountain. It is truly remarkable how well they bear the rough treatment.

The evergreen foliage of this interesting tree is dense and dark, and casts a deep shade, which in sunny climates is always a desirable character. Its gray trunk and upright branches produce a graceful vase form, while its bright red plum-like fruits show off in pretty contrast against the dark background of leaves.

These plums are nearly all seed, only a thin layer of subacid pulp lying between the stone and the thin red skin, and though they are of sufficient sweetness to be attractive to children, they would find no use in our American households.

The species is a tender one and could only succeed in the frostless regions of the country, but its characters as a shade or avenue tree should win for it a place among the ornamentals of the subtropical zone.

According to the conservator of forests of Cape Colony, Mr. D. E. Hutchins, the Kafir plum is a large timber tree of the eastern provinces and produces a useful wood that is almost indistinguishable from mahogany, and which, like the latter, requires careful seasoning.

THE ROOI-BLOEM, A NEW CORN PARASITE.

Plant introduction concerns itself with calling to public notice plants which should not be introduced as well as those that are eligible for cultivation.

Professor MacOwan handed the writer the letters which are here reproduced, and which call attention in a forcible way to a parasite of the Indian corn plant which might prove a great pest if once introduced into our corn belt.

The plant has caused damage among the mealies (Indian corn) in Natal, and the Government entomologist, Mr. Fuller, has published in his reports notices of its ravages. While it appears to cause the most injury in poorly cultivated ground, and, in the opinion of Mr. Fuller, requires only clean culture to get rid of it, it is no doubt a pest that American corn growers should beware of introducing. The danger of its introduction seems quite remote, since no grain is imported from South Africa to America, but still it would be well to guard against any chance of its being introduced.

Transvaal Department of Agriculture,
Government Buildings,
Pretoria, February 24, 1903.

Sir: I am sending you per same post a box containing a weed forwarded to me for identification. As we are at present without a botanist, I trust you will kindly help me in the matter. * * * For your fuller information I inclose the letter which accompanied the specimen.

I have the honor to be, sir, your obedient servant,

R. A. Davis.

Professor MacOwan, *Cape Town.*

[Inclosure.]

Sandbach, Amsterdam P. O., *February 15, 1903.*

Sir: I am sending you by this post a box containing a weed which is very prevalent on this farm. The Dutch call it "*Rooi-bloem.*" When it appears among mealies it immediately kills the mealies. I have a field of over 40 acres which had a first-class crop of mealies three weeks ago; since then this "*Rooi-bloem*" has appeared, and I am doubtful if I shall get five bags off the whole field. The Dutch say there is no cure for it, and nothing can be done to eradicate it; but I can not find out whether anything has been tried. Will you be good enough to inquire if any known cure exists? It is said that "*Rooi-bloem*" only affects mealies. I have been trying to get oats for sowing in April, but can not get any "Africander" oats.

Yours, faithfully,

G. S. Leslie.

Secretary Land Board, *Pretoria.*

Cape Government Herbarium,
Cape Town, February 28, 1903.

My dear Sir: I am in receipt of your letter of the 24th instant respecting a weed doing mischief in mealie crops, and of the sample belonging thereto.

The plant is a semiparasite, *Striga coccinea* Bth., and is not infrequent on our eastern frontier. Its habits resemble those of *Rhinanthus crista-galli* L., the "*yellow rattle*," and *Melampyrum pratense* L., in that it is able to live easily on its own roots like other normal plants, but also to attach itself to those of more succulent neighbors and draw surreptitiously upon their food material. It will work when it must, but prefers the easier life of a predatory parasitism.

As to extirpation of this showy interloper, advise your correspondent to give up for the present the culture of cereals upon the acreage infested with *Striga*, so that the parasite shall find no host to receive it, and perseveringly plow and cross plow, following with the harrow to get the weeds into heaps for drying and burning. A crop of totally different character, such as lucerne, for instance, would be best. But if local conditions do not allow of this, a double cropping with rape, to be grown on till fit for stock food, fed off, and then turned in to make way for the second crop suggests itself. The object is to give no chance to the *Striga* to renew its parasitism. The seed of the *Striga* is small and tenacious of life, hence the repeated working of the soil is important. Also it would be well to use kraal manure in place of stable dung. It is astonishing what a number of weed seeds pass through the intestinal tract of the horse, and since we very rarely keep his contribution to the fertility of the farm long enough to insure their being killed out by a proper rotting down, we innocently sow a crop of weeds along with the manure. This is the secret of the spread of "zuuring" far and wide.

Will you hereafter let me know what is decided on and what the results amount to? I will consult our recently arrived agricultural assistant, and will let you know sharp whether he has anything different to recommend.

Remaining, my dear sir, yours, faithfully,

P. MacOwan.

R. A. Davis, Esq., *Pretoria*.

THE NATAL PINEAPPLE.

The common pineapple of Natal, which is served everywhere in the colony on private and hotel tables, is one of the most satisfactory varieties of this fruit in the world.

Mr. Lathrop, who has traveled for many years in pineapple-growing countries, found the Natal pine one of the most delicious and in certain respects the most satisfactory of any which he had ever eaten.

This variety is a small one, the fruit often not being over 6 inches long, but this is one of its desirable characters. It is just large enough to serve as an individual fruit at a dinner table, and the result is that in Natal one is given a whole pineapple and prepares it himself, instead of a slice from a fruit that has been prepared in the kitchen and in which fermentation has already set in.

The form of this fruit is in all ways satisfactory. It has a small cluster of leaves at the apex, just large enough to serve as a good handle when you are preparing it for eating. The seed cavities are small and do not enter a great distance into the fruit. The skin is thin and easily cut off with a sharp knife. The flesh, which has a golden-yellow color when ripe, is so crisp and brittle that you can break it away from the slender core with a fork almost as easily as you could tear an apple to pieces. Many pines having a deliciously flavored flesh are so tough and full of fiber that it is only with difficulty that portions can be separated from the core for eating. This character of tender, fiberless flesh is possessed by the Natal pine to a very marked degree, and especially recommends it to people whose delicate digestion prohibits their eating the ordinary sorts, which contain more or less fibrous matter.

As regards flavor this variety leaves little to be desired. It has the characteristic pineapple taste, is deliciously sweet, and compares in these characters very favorably with the best hothouse pines. It may not be quite so juicy as the latter, but this character can scarcely be considered an objection to it.

No pine that has come to our attention has so little core to it as this Natal sort. Some fruits have scarcely any core, the pencil-thick center part itself being tender enough to eat, and as a rule the core spindle which one discards in eating is not over a half inch in diameter.

According to those with whom the writer talked the origin of this Natal pine is not known, though it has been in cultivation many years in the colony. Some time ago the Government, under the impression that foreign varieties were better than their own, introduced suckers of the Ceylon and other larger fruited sorts for trial. These introductions have produced no effect upon the cultivation of this native sort, I am informed, and the "common pine" is still the great market variety of South Africa.

This Natal variety is so remarkable that suckers for introduction into America would have been secured had not many of the fruits seen in the markets and on the hotel tables been affected with what appears to be a disease; and although the contagious character of this malady or even its determination as of fungus or bacterial origin could not be decided, it was deemed best to take no chances of introducing it into our pineapple plantations.

The fruits affected by this disease have generally soft spots on them near the base, which, when cut into, are found to reach some distance into the flesh. The small cavities characteristic of the outer part of the pine are in these affected areas of a peculiar white color. This appearance resembles somewhat that produced by a felt of very fine fungous mycelium, but with a high-power hand lens no mycelial filaments could be detected. The same white color is also often produced in fruit flesh by the drying out of the juicy cells, and I am inclined to think that empty air-filled cells are the cause of the snowy-white appearance in this case. The flesh about the diseased areas is soft and juicy, but in none of the fruits examined was there any dark discoloration such as characterizes the pineapple disease described from Queensland and which is reported to be caused by the conidial, Fusarium-like form of some Ascomycete. This Natal malady does not agree with the description of the Queensland disease, and, if it proves to be a fungous disease at all, will probably be found to be caused by some new species of fungus.

A pine which is probably identical with this Natal variety is grown extensively in the eastern provinces of Cape Colony. It is there cultivated on the hillsides at a considerable altitude and not on the level plains, and it is grown in such quantities that the markets everywhere are overstocked with it. Pineapples are the cheapest fruit in South Africa.

Some of these eastern province pineapples were sent for by the Cape department of agriculture in order that we might compare them with the Natal variety. These, although not quite so luscious as those eaten in Natal, were evidently the same sort, and the very slight inferiority in flavor might be easily explained by the fact that the eastern-province fruits were picked before becoming quite ripe in order to ship well, while the Natal ones came more directly from the fields.

Through the department of agriculture a number of suckers of this eastern-province pineapple were ordered after it was ascertained that the disease which affected the Natal fruits was unknown there. These were to be sent from perfectly healthy plantations[a] and are unquestionably safe for introduction; but in order to make doubly sure of not introducing any pernicious pests, the introduced suckers will be grown apart from the commercial plantations and carefully watched.

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[a] According to Mr. Malley, the Assistant Cape Entomologist, there are, in the eastern provinces, plantations in which pines do not grow well and some situations where pineapple growing has had to be abandoned. Whether any specific disease is the cause of this or not is a disputed question. A careful examination on his part failed to reveal any cause, and it seems most likely that unsuitable physical conditions will account for the failure of the fruit in these situations.

B. P. I.—59. S. P. I. D.—36.

IV. CONGRESSIONAL SEED AND PLANT DISTRIBUTION CIRCULARS, 1902-1903.[a]

[Circular sent to Senators, Members, and Delegates in Congress.]

PLAN OF DISTRIBUTION AND ALLOTMENTS OF CONGRESSIONAL SEEDS AND PLANTS, 1902-1903.

Some changes in the plan of conducting the Congressional distribution of seeds, plants, bulbs, etc., during the fiscal year 1902-1903 have been approved by the Honorable Secretary of Agriculture, and in order to aid you in preparing addressed franks your attention is respectfully called to the changes set forth below.

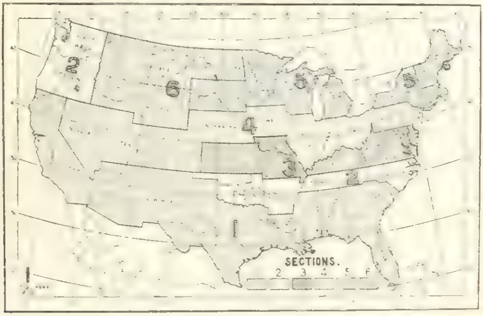

FIG. 4.—Map showing the districts into which the United States has been divided for seed distribution purposes.

Division of the country.—With a view of handling the seed to better advantage the country has been divided into six districts, and varieties of seeds and plants particularly adapted to each district will be distributed therein. The accompanying small map shows the manner in which the divisions have been made.

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[a] This publication consists of a number of circulars prepared by different members of the scientific force of the Bureau of Plant Industry and one prepared by the Chief of the Bureau of Soils. These circulars were originally printed to accompany the seeds sent out through the Congressional distribution and consist of descriptions of varieties and directions for their culture. Many of these contain matter that should form part of the permanent records of the Department, and they have therefore been collected for publication in this form.—A. J. PIETERS, *Botanist in Charge of Seed and Plant Introduction and Distribution, Washington, D. C., May 12, 1903.*

Vegetable seeds.—There will be, as usual, a distribution of miscellaneous vegetable seeds, and in addition it is planned to furnish a limited number of packages of novelties—that is, seeds of varieties either new or little known and of peculiar merit for distribution in each locality. The miscellaneous vegetable seeds will be put up as usual, 5 packets in a package, and each Senator, Member, and Delegate in Congress will have 12,000 such packages to his credit. There will be 500 packages containing the novelties, each package containing 5 packets. The novelties will be accompanied by a circular describing the varieties in full and giving directions for culture and use. There will also be a franked postal card for each collection of the novelties, so that the recipient may, if he desires, signify his willingness to make a report to the Department on the seeds received.

Flower seeds.—The number of packages of flower seeds allotted to each Senator, Member, and Delegate in Congress has been increased to 500, and arrangements have been made whereby members having city constituents may exchange vegetable seeds for flower seeds, if they so desire. Details of this arrangement will be furnished later. A special collection of flower seeds will be prepared for those having strictly city constituents, the varieties chosen being suitable for window boxes, lots, and small dooryards.

Cotton and tobacco.—The plan adopted last year of putting up special collections of cotton and tobacco best adapted to the districts into which they are sent will be continued. This work has proved very satisfactory, as through it many valuable varieties have been distributed.

Grass seed and forage crops.—Plans for the distribution of these seeds have not yet been fully matured, and a later announcement will therefore be sent out as soon as complete arrangements are perfected.

Plants, trees, and grapevines.—The distribution of plants, trees, and grapevines will be similar to that of last year, excepting that the number of trees will be increased to 100 for each Senator, Member, and Delegate. Full information as to the character of the trees, plants, etc., will be forwarded later.

Bulbs.—These will be ready for distribution early in November, and they should be distributed promptly in order to secure the best results. Due notice will be forwarded when the bulbs are received.

Loose packets of vegetable seed.—In order to enable Senators, Members, and Delegates to quickly meet small miscellaneous demands for vegetable seed, loose packets of the assortments put up for general distribution will be sent to committee rooms, or elsewhere in Washington, upon receipt of proper orders. Envelopes for forwarding these packets through the mails will also be furnished. This plan will make it practicable to send out packages containing more than five packets, if it is desired to do so. In no case, however, can the Department put up such packets, as the large number of packages to be distributed makes it necessary to use uniform numbers.

Franks.—The present session of Congress authorized the Public Printer to furnish the Secretary of Agriculture with the franks of Senators and Members necessary for sending out the seeds. Arrangements have therefore been made for securing franks with the facsimile signatures of Senators and Members, together with their respective States, printed thereon. These franks will be furnished at once, in sufficient quantity for vegetable and flower seeds, upon request made to the Secretary of Agriculture. With this arrangement there will be no necessity for using document slips, and all of those made for the seed work will be of uniform size and style.

Southern distribution.—It is planned to make the distribution in sections 1 and 2 at an earlier date than heretofore, and to this end arrangements have been made to begin the work in September. In order to do this, members from these sections are earnestly requested to turn in their addressed slips as early as possible.

The following statement shows the amounts of seeds, bulbs, plants, and trees, so far as the allotments have been made, for the fiscal year 1902–3.

Each Senator, Member, and Delegate will receive:

Vegetable seed, 12,000 packages, 5 papers each.

Novelties, vegetable seed, 500 packages, 5 papers each.

Flower seed, 500 packages, 5 papers each.

Tobacco seed, 110 packages, 5 papers each, to districts growing tobacco.

Cotton seed, 70 packages, 1 peck each, to districts growing cotton.

Lawn grass seed, 30 packages.

Forage crop seed, allotment not yet made.

Sorghum seed, allotment not yet made.

Sugar-beet seed, allotment not yet made.

Bulbs, 10 boxes, 35 bulbs each; or 20 boxes, 17 bulbs each.

Grapevines, 8 packages, 5 vines each.

Strawberry plants, 10 packages, 15 plants each.

Trees, 20 packages, 5 trees each.

Note.—One frank will be required for each package given above, and if more than one package is to be sent to one individual it will be necessary to have an addressed frank for each package. The smallest mail sacks used hold approximately 100 packages of vegetable or flower seed, and if it is desired to send less than this number to any one individual it will be necessary, in order to meet the post-office requirements, to have an addressed frank for each package. Over 100 packages, however, may be sent under one addressed frank, provided blank facsimile slips, to the number of packages desired, accompany the address. In other words, if it is desired to send 200 packages of seed to one individual, one addressed frank and 199 blank franks, with the name of the Senator, Member, or Delegate printed thereon, will answer.

In sending addressed slips to the Department, please, in every case, plainly mark each lot with the name of the seeds or plants the slips are to cover, otherwise the Department will be unable to tell what is wanted.

Respectfully submitted.

B. T. GALLOWAY,
Chief of Bureau.

Approved:
JAMES WILSON, *Secretary.*

WASHINGTON, D. C., *May 28, 1902.*

[Circular sent to recipients of seeds of novelties and specialties included in Section 1 of the scheme of distribution.]

DISTRIBUTION OF NOVELTIES AND SPECIALTIES.

SECTION 1.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the Department. In making the report, please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

CORN.

TRUCKER'S FAVORITE.

A variety of field white dent corn, introduced in 1899 by T. W. Wood & Sons, which is recommended by them for table use. It has found some favor as a substitute for sweet corn, but the quality is poor and decidedly inferior to varieties of sweet corn, though much better than the ordinary varieties of field corn. It possesses the advantage over sweet corn in that it can be planted earlier, is hardier, and can be grown successfully sometimes where sweet corn does not grow well. In these respects it resembles the Early Adams or Burlington field corn, which is used so largely as sweet corn, but differs from it principally in being larger eared and later. It is second early in season and follows immediately after Early Adams. The habit of the plant is the same as field corn, and the ears are 14-rowed and handsome. More especially adapted for large truckers than for home gardeners to whom quality is more of a consideration than hardiness.

Seed furnished by T. W. Wood & Sons, Richmond, Va.

BEET.

Crimson Globe.

An entirely distinct variety introduced in 1900 by Peter Henderson & Co.

Different from other kinds principally in its deep dark crimson color, and valuable on this account as well as for earliness, beautiful globe shape, and perfectly smooth roots, which are entirely free from root hairs, rootlets, and markings. The taproot is also very fine and slender and the top very smooth, with small crown. The roots are, however, very small, but, the leaves being also small and very erect in habit, the plants can be grown very close together and large crops obtained. The leaves are dark green in color. The flesh is a deep crimson and beautifully zoned with dark crimson and a lighter shade; the quality is very sweet and tender, never coarse nor woody. The season is about the same as Detroit Dark Red.

Seed furnished by T. W. Wood & Sons, Richmond, Va.

LETTUCE.

Wood's Cabbage.

This appears to be a strain of the well-known Hubbard's Market and was named and introduced in 1884 by T. W. Wood & Sons, of Richmond, Va. This is not at all a new variety or even a distinct sort, but is deserving of attention as an especially pure and even stock of Hubbard's Market, from which it was probably developed.

The plant is medium early, medium large, thick-leaved, very solid and compact, strictly cabbage-heading in habit, and medium dark solid green in color. It is a good all-round variety, answering splendidly for both forcing under glass and growing outdoors either in early spring or midsummer. The quality is very fine, being tender and sweet and of a slightly buttery flavor. The plants are hardy and slow to go to seed.

Seed furnished by T. W. Wood & Sons, Richmond, Va.

SQUASH.

Wood's Earliest Prolific.

Originated with market gardeners in Hanover County, Va., and introduced by T. W. Wood & Sons in 1897. It is similar in all respects to the well-known White Bush Scallop, but is said by the originators to be a week to ten days earlier and with scallops not quite so decided and more evenly rounded on the edge.

This variety is a type of the summer squash seen everywhere very early in our markets, and known as cymling in some places and patty-pan in others. The plants are strictly bush in habit and the fruits flattish and round in shape, with center enlarged and margins flattened and scalloped. In color the fruits are a creamy white, the surface is very smooth, and the rind is exceedingly hard when the fruit is dead ripe. This is the earliest squash obtainable, and though of good quality it is not equal to the winter varieties which are not obtainable till much later in the season.

Seed furnished by T. W. Wood & Sons, Richmond, Va.

TOMATO.

Sparks's Earliana.

Originated by George C. Sparks, of Philadelphia, and introduced in 1900 by Johnson & Stokes of the same city.

This variety is unquestionably an improvement in extra early tomatoes. While it is just as early as Atlantic Prize and similar sorts, which have formerly held the lead for smooth early tomatoes, it is an improvement on them in smoothness and size, qualities which are generally gained at the expense of earliness. The fruits are the same bright red color and flattened globe shape as Atlantic Prize, but they are a little larger in size and a considerably larger per cent of them are smooth and salable in the best markets.

The vines have fine foliage, are very open in habit, productive, and require but a short time to mature the season's crop.

Seed furnished by T. W. Wood & Sons, Richmond, Va.

A. J. Pieters, *Botanist in Charge.*

Approved:
B. T. Galloway, *Chief of Bureau.*

[Circular sent to recipients of seeds of novelties and specialties included in Section 2 of the scheme of distribution.]

SECTION 2.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the Department. In making the report, please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

BEAN.

Jones's Stringless Wax.

Originated by A. N. Jones, of Leroy, N. Y., and introduced by American seedsmen in 1898. It is the result of crossing the Yosemite Wax with a white-seeded cross of the Ivory Pod Wax, and combines the superlative quality and fleshy, absolutely stringless pods of the former with the great productiveness and hardiness of the latter. The "shy" bearing and ill-shaped pods of the Yosemite are eliminated, while the seeds being white makes it especially valuable to market gardeners who wish to use it as a shell bean, in case the marketing of string beans proves unprofitable. The pods are very beautiful, of a waxy white color, cylindrical in shape, and of medium size. The plants are very early, very dwarf in habit, and run remarkably even and pure. This variety is similar to the recently introduced Golden Crown Stringless, and also to the old and well-known Challenge Black Wax, from which it differs principally in color of seed and larger vine.

Seed furnished by D. M. Ferry & Co., Detroit, Mich.

ONION.

SOUTHERN GROWN YELLOW GLOBE DANVERS.

This seed is said by the grower to be specially adapted for the Southern States, and to make better bulbs when planted in the South than seed grown in California even or other sections of the country.

The variety is the old and well-known yellow sort, grown so much more extensively than any other and seen everywhere in our markets. It is deeper in shape than the Yellow Danvers or Flat Danvers, but otherwise is the same. The bulbs are a flat globe shape, of medium size, intermediate in season, medium yellow in color, and of a mild flavor. The variety is hardy, productive, a good keeper, and a good general purpose sort.

Seed furnished by T. W. Wood & Sons, Richmond, Va.

MUSKMELON.

ROCKY FORD.

This variety is a strain of the old and well-known Netted Gem, and has been recently developed and grown in immense quantities at Rocky Ford, Colo., whence it has been shipped extensively to all the eastern and northern markets. The variety has been made extremely popular by the Rocky Ford growers, as much on account of the careful shipping they have practiced as for the fine melons they have been able to produce in their ideal melon-growing country. The development of the variety is obscure and disputed. It was first introduced by seedsmen in 1899.

The melon is very early and productive, and the fruit is oval shaped, shallow ribbed, densely netted, small in size, and mottled green and yellow in color. The flesh is green, of the very best quality, and, though not as rich as some others, is not surpassed in sweetness by any, while it is uniformly good and more universally liked than any other.

This seed was carefully selected by D. V. Burrill, of Rocky Ford, Colo., from melons of uniform size that were ideal in every particular.

TOMATO.

QUARTER CENTURY.

Originated in Monmouth County, N. J., in 1896 by Dr. William Van Fleet, and introduced in 1900 in trial packets by W. Atlee Burpee & Co. In the following year it was named Quarter Century. It appeared as a sport in the third generation from a cross between Lorillard, a bright scarlet fruit of the ordinary type of foliage, and Dwarf Champion, a purplish-red fruit of dwarf habit.

The variety is unquestionably, as claimed by the introducer, a valuable one, and larger in vine, more productive, and larger fruited than Dwarf Champion, which is the recognized standard dwarf variety. It differs also in being a bright scarlet instead of purplish red. The fruits are medium large, very deep or nearly round in shape, perfectly smooth, and of high quality. It is most like Dwarf Aristocrat and Dwarf Stone, but much larger fruited than the former and not quite so deep scarlet in color as the latter. It is claimed to be more dwarf, compact, and erect in habit than any other bush variety. It can be planted as close as 2½ feet apart each way.

Seed furnished by T. W. Wood & Sons, Richmond, Va.

RADISH.

WHITE ICICLE.

Originated by a German grower several years previous to its introduction into this country in 1899 by J. M. Thorburn & Co.

This variety is a decided acquisition to our list of radishes. It is a long, pure white sort, especially superior to other kinds in its good size and length, combined with earliness and strikingly beautiful color, which is of a rich glossy white, entirely free from purple or yellow tints, and very much the same clear white at the top as at the bottom. The stocks run very even in both color and shape, and in the latter respect are very beautiful and different from other long sorts in retaining their fullness to the bottom. The roots are of the very highest quality and rich, tender, and sweet. The plants remain fit for use fairly long before shooting to seed.

Seed furnished by T. W. Wood & Sons, Richmond, Va

A. J. PIETERS, *Botanist in Charge.*

Approved:
B. T. GALLOWAY, *Chief of Bureau.*

[Circular sent to recipients of seeds of novelties and specialties included in Section 3 of the scheme of distribution.]

SECTION 3.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the Department. In making the report, please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

MUSTARD.

Ostrich Plume.

Originated in Augusta, Ga., and introduced in 1897 by the N. L. Willet Drug Company of the same city.

It is claimed by the introducer to be the most beautiful and perfect mustard in cultivation, and as pretty as an ornamental plant. It is described as a large plant, often weighing as much as 5 or 6 pounds, and with tender plumes, very long and finely crimped.

Seed furnished by F. Barteldes & Co., Lawrence, Kans.

BEANS.

Wood's Earliest Hardiest.

Introduced by T. W. Wood & Sons in 1893, and said by them to resemble the well-known Early Mohawk.

The claims for this variety made by the introducers are extreme earliness and hardiness, great productiveness, and fine quality. It is said to excel in these qualities any variety in cultivation; to be able to stand a light frost without injury, and to stand early planting better than any other variety; also on account of its productiveness to be suitable for a main crop or for late planting. The pods are extremely tender and make good snaps, and the dry beans are suitable for winter use as shell beans. The pods are described as very large, long, and flat, and the seeds as white in color.

Seed furnished by T. W. Wood & Sons, Richmond, Va.

LETTUCE.

All Seasons.

A very desirable variety introduced in 1897 by J. C. Vaughan, of Chicago, Ill., but it seems never to have gained any general recognition. Excepting that the seed is black instead of white, it might very generally pass as identical with the well-known Deacon, but it differs from that variety in a number of particulars, the most important of which are its slightly larger size, later season, and rounder head. Where Deacon is liked this variety should be tried, for under some conditions it grows better than the Deacon, though generally it is not so sure a header.

All Seasons is a large, thick-headed, rather soft, but strictly cabbage-heading variety, light green in color, and medium late in season. The quality is very fine, of a soft texture and buttery flavor, and though it can hardly be said to be strictly delicate in flavor, it is absolutely free from coarseness or bitterness.

Seed furnished by Vaughan's Seed Store, Chicago, Ill.

MUSKMELON.

ROCKY FORD.

This variety is a strain of the old and well-known Netted Gem, and has been recently developed and grown in immense quantities at Rocky Ford, Colo., whence it has been shipped extensively to all the eastern and northern markets. The variety has been made extremely popular by the Rocky Ford growers as much on account of the careful shipping they have practiced as for the fine melons they have been able to produce in their ideal melon-growing country. The development of the variety is obscure and disputed. It was first introduced by seedsmen in 1899.

The melon is very early and productive, and the fruit oval shaped, shallow ribbed, densely netted, small in size, and mottled green and yellow in color. The flesh is green, of the very best quality, and, though not as rich as some others, is not surpassed in sweetness by any, while it is uniformly good and more universally liked than any other.

This seed was carefully selected by D. V. Burrill, of Rocky Ford, Colo., from melons of uniform size that were ideal in every particular.

WATERMELON.

EDEN.

Originated by Mr. C. H. Mathis, of South Carolina, a large Southern melon grower, and introduced in 1900 by T. W. Wood & Sons. It is said by the introducers to be a cross of the Kolb's Gem and Rattlesnake. It very closely resembles the former, but is superior to it in its larger size, brighter striping, and more symmetrical shape. It also resembles the well-known Dixie and recently introduced Iceberg, but differs from them as well as from Kolb's Gem in the color of seeds, which are white instead of mottled grayish-black, as in these varieties. In what further respects, if any, it differs from Iceberg our trials have not yet fully demonstrated, but it is unquestionably shorter in shape than Dixie. The fruits are of mammoth size, short oval in shape, and brilliantly striped light and dark green. The variety is especially valuable as a shipper, but for home use other varieties of better quality are recommended. The quality is fair, but compared to the finer-grained sorts, such as Peerless and Round Light, it is coarse, stringy, and lacks in sweetness and richness.

Seed furnished by T. S. Williams, Columbia, S. C.

A. J. PIETERS, *Botanist in Charge.*

Approved:

B. T. GALLOWAY, *Chief of Bureau.*

[Circular sent to recipients of seeds of novelties and specialties included in Section 4 of the scheme of distribution.]

SECTION 4.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the Department. In making the report, please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

CORN.

COSMOPOLITAN.

Originated by E. B. Clark & Co., seed growers of Milford, Conn., and introduced in 1901 by W. Atlee Burpee & Co., of Philadelphia.

This is an extra early variety, of good quality and fair-sized ear. It is not quite so early as Cory, First of All, and other first extra early varieties, but is of better quality and the ears are larger. The kernels are wrinkled, very large, broad, flat, and short. Though not in the least flinty, the seed germinates very well, and can be sown earlier than the later and more wrinkled varieties. The ears are 10 and 12 rowed, very well filled, about the same diameter from end to end, and very handsome.

Seed furnished by W. Atlee Burpee & Co., Philadelphia, Pa.

LETTUCE.

ICEBERG.

Originated in Italy, and first introduced into this country in 1894 by W. Atlee Burpee & Co. Marblehead Mammoth, which was introduced the following year, is sometimes thought to be the same. Undoubtedly stalks of the two are often interchanged, but the true Marblehead Mammoth is more crumpled in leaf and less heading in habit than Iceberg.

The variety is a very large, late, extremely hard, strictly cabbage-heading sort, light green in color. The leaf is very crumpled, slightly tinged with red, and very curly at the margin. In quality it is very tender, crisp, and sweet, but not as delicate in flavor as some of the smaller and less coarse-growing sorts. It is not suitable for forcing, but does well outdoors and stands the heat well. The well-known Hansen and New York varieties are very much like it in all respects except color.

Seed furnished by W. Atlee Burpee & Co., Philadelphia, Pa.

MUSKMELON.

DEFENDER.

This desirable new variety is a result of continued selection of Paul Rose with the especial view of developing fine quality, thick meat, and thin rind. It was first introduced in 1901 by D. M. Ferry & Co., by whom it was originated. The fruits resemble Paul Rose more than any other, and being considerably larger and more densely netted than that popular variety, it makes a valuable addition to our list of varieties.

The fruits are strikingly beautiful in appearance, and especially distinguished by regular oval shape, even shallow ribbing, thick netting, and rich mottled color. The flesh is of a deep red color, very sweet, rich, and melting, without the coarseness and stringiness of some of the large-growing, green-fleshed sorts. Being firm and solid, the fruits are well adapted for shipping. They are of medium size, and the plants are productive and early.

Seed furnished by D. M. Ferry & Co., Detroit, Mich.

RADISH.

White Icicle.

Originated by a German grower several years previous to its introduction into this country in 1899 by J. M. Thorburn & Co.

This variety is a decided acquisition to our list of radishes. It is a long, pure white sort, especially superior to other kinds in its good size and length, combined with earliness and strikingly beautiful color, which is of a rich glossy white, entirely free from purple or yellow tints, and very much the same clear white at the top as at the bottom. The stocks run very even in both color and shape, and in the latter respect are very beautiful and different from other long sorts in retaining their fullness to the bottom. The roots are of the highest quality, and rich, tender, and sweet. The plants are rather slow to shoot to seed and the roots are fit for use a fairly long time.

Seed furnished by W. Atlee Burpee & Co., Philadelphia, Pa.

ONION.

Extra Early Brown Spanish.

This variety has been grown and selected for the past few years by C. C. Morse & Co., seed growers, Santa Clara, Cal., and is introduced for the first time this year. The accompanying description was furnished by the growers:

"This onion has been grown for many years in Australia, where it is used for a very early market variety. It is extremely early, and can be had in market at least four weeks before Early Yellow Cracker, Yellow Danvers, Australian Brown, Early Red Globe, or Extra Early Red Flat. It is a half-globe variety, and averages about 2½ inches in diameter. Its color is brown, much the same but a little lighter than Australian Brown. It is mild and sweet, and, while not a good onion for storage, keeps much better than the Bermudas or any of the early white onions. It ripens down evenly, and seldom has any scallions or stiff necks. With us in California it was ready for market August 1—at least one month before the early varieties mentioned above—and now, October 13, it is still in very good condition for market."

Seed furnished by C. C. Morse & Co., Santa Clara, Cal.

A. J. Pieters, *Botanist in Charge.*

Approved:
B. T. Galloway, *Chief of Bureau.*

[Circular sent to recipients of seeds of novelties and specialties included in section 4a of the scheme of distribution.]

SECTION 4a.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the Department. In making the report please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

CORN.

Metropolitan.

Introduced in 1898 by Peter Henderson & Co. as a variety combining earliness and good quality to a greater degree than any other. It is claimed to be not only sweet, but to possess also the richness of the later sorts. It is specially recommended to market gardeners as a shipper, and especially to those gardeners who supply the more critical trade. The plant is hardy, dwarf in habit, and extra early in season. The ears are medium sized, 10 to 12 rowed, well filled, and very handsome, with the broad, thick, shallow kernels of the extra early sorts.

LETTUCE.

Crisp as Ice.

Introduced by the Livingston Seed Company in 1895. Plant is intermediate in season, of medium size, dark-green color, very completely, sometimes almost wholly, washed with dark brown, but the inside leaves are well blanched to a light, bright green. The plant makes a firm and well-defined, somewhat ovate-shaped, cabbage head. The leaves, although very thick, are easily broken, and this, together with its unusually dark, somewhat dull brown color, make it both unfit for and unattractive as a general market garden sort. But for home use or where quality is important this variety is one of the very best. It is extremely tender and crisp and of an unusually delicate and sweet flavor, at the same time also slightly buttery.

Seed furnished by C. C. Morse & Co., Santa Clara, Cal.

MUSKMELON.

DEFENDER.

This desirable new variety is a result of continued selection of Paul Rose with the especial view of developing fine quality, thick meat, and thin rind. It was first introduced in 1901 by D. M. Ferry & Co., by whom it was originated. The fruits resemble Paul Rose more than any other, and, being considerably larger and more densely netted than that popular variety, it makes a valuable addition to our list of varieties.

The fruits are strikingly beautiful in appearance, and especially distinguished by regular oval shape, even shallow ribbing, thick netting, and rich, mottled color. The flesh is of a deep red color, very sweet, rich, and melting, without the coarseness and stringiness of some of the large-growing, green-fleshed sorts. Being firm and solid, the fruits are well adapted for shipping. They are of medium size, and the plants are productive and early.

Seed furnished by D. M. Ferry & Co , Detroit, Mich.

BEET.

CRIMSON GLOBE.

An entirely distinct variety introduced in 1900 by Peter Henderson & Co.

Different from other kinds principally in its deep dark crimson color, and valuable on this account as well as for earliness, beautiful globe shape, and perfectly smooth roots, which are entirely free from root hairs, rootlets, and markings. The taproot is also very fine and slender and the top very smooth, with small crown. The roots are, however, very small, but the leaves being also small and very erect in habit the plants can be grown very close together and large crops obtained. The leaves are dark green in color. The flesh is a deep crimson and beautifully zoned with dark crimson and a lighter shade; the quality is very sweet and tender, never coarse nor woody. The season is about the same as Detroit Dark Red.

Seed furnished by J. M. Thorburn & Co., New York.

ONION.

EXTRA EARLY BROWN SPANISH.

This variety has been grown and selected for the past few years by C. C. Morse & Co., seed growers, Santa Clara, Cal., and is introduced for the first time this year. The accompanying description was furnished by the growers:

"This onion has been grown for many years in Australia, where it is used for a very early market variety. It is extremely early, and can be had in market at least four weeks before Early Yellow Cracker, Yellow Danvers, Australian Brown, Early Red Globe, or Extra Early Red Flat. It is a half-globe variety, and averages about 2½ inches in diameter. Its color is brown, much the same but a little lighter than Australian Brown. It is mild and sweet, and while not a good onion for storage, keeps much better than the Bermudas or any of the early white onions. It ripens down evenly, and seldom has any scallions or stiff necks. With us in California it was ready for market August 1, at least one month before the early varieties mentioned above, and now, October 13, it is still in very good condition for market."

Seed furnished by C. C. Morse & Co., Santa Clara, Cal.

A. J. Pieters, *Botanist in Charge.*

Approved:
B. T. Galloway, *Chief of Bureau.*

[Circular sent to recipients of seeds of novelties and specialties included in Section 5 of the scheme of distribution.]

SECTION 5.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the Department. In making the report, please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

MUSKMELON.

Rocky Ford.

This variety is a strain of the old and well-known Netted Gem, and has been recently developed and grown in immense quantities at Rocky Ford, Colo., whence it has been shipped extensively to all the eastern and northern markets. The variety has been made extremely popular by the Rocky Ford growers as much on account of the careful shipping they have practiced as for the fine melons they have been able to produce in their ideal melon-growing country. The development of the variety is obscure and disputed. It was first introduced by seedsmen in 1899.

The melon is very early and productive, and the fruits are oval shaped, shallow ribbed, densely netted, small in size, and mottled green and yellow in color. The flesh is green, of the very best quality, and, though not as rich as some others, is not surpassed in sweetness by any, while it is uniformly good and more universally liked than any other.

This seed was carefully selected by D. V. Burrill, of Rocky Ford, Colo., from melons of uniform size that were ideal in every particular

BEAN.

Thorburn's Prolific Market.

A foreign type of bean obtained by J. M. Thorburn & Co. from Vienna, Austria, and first introduced by them in 1894.

It is claimed by the introducers to be an enormously productive variety, bearing its pods in thick clusters of 35 to 40 pods to a plant, and exceedingly vigorous, healthy, and remarkably rust proof. The pods are light green in color, very long and perfectly round in shape, solid fleshed, and of a very soft and marrowy texture. The vines are very large and erect in habit; the leaves, very dark; seeds, black; season, late. It is claimed by the originators that for productiveness, solidity of flesh, and roundness of pod it excels any variety now in cultivation.

Seed furnished by J. M. Thorburn & Co., New York.

TOMATO.

Success.

Originated in 1897 by M. M. Miesse, a market gardener and tomato specialist of Lancaster, Ohio. Introduced in 1900 by Wm. Henry Maule under the name of "Maule's 1900," and in the following year called "Success."

This is an excellent, very large, smooth, deep scarlet variety, similar to many other recently introduced varieties, such as Noble, Century, and Marvel, but said to be superior to them in productiveness, smoothness of fruit, and to be more free from any hard or green core. The variety does undoubtedly combine these qualities to a very large degree, and, as claimed, is of excellent quality and a splendid sort for either the canner, trucker, or private gardener. The foliage is of the common large-leaved kind, and the vines are strong and vigorous. The season is second early. The fruits are a deep flat globe shape, or as nearly globular in form as it is possible to obtain a large tomato.

Seed furnished by M. M. Miesse & Son, Lancaster, Ohio.

RADISH.

Glass.

A variety introduced by F. Barteldes & Co. and Northrup, King & Co., as claimed, about ten years ago, the former obtaining his seed from a Denver (Colo.) market gardener and the latter from Cincinnati market gardeners. The variety is considered by many to be identical with the Cincinnati Market and Long Scarlet Short Top varieties, but a few claim that it is not quite so long and that it possesses to a degree greater than Long Scarlet Short Top the peculiar transparency which gives rise to its name.

The roots are very long and tapering, exceedingly smooth, free from root hairs, of a brilliant scarlet color, making it altogether the most handsome and showy of the long red varieties. The variety is medium early in season and remains fit for use fairly long before shooting to seed. The flesh is mild and tender. As the tops are very small, the roots can be planted close together.

Seed furnished by Northrup, King & Co., Minneapolis, Minn

SQUASH.

Golden Bronze.

This variety is the result of an accidental cross between the Bay State and Boston Marrow found by Mr. Aaron Low, of Hingham, Mass., in 1896. After being improved by Mr. Low this variety was sold to James J. H. Gregory & Son, who introduced it in 1899 as "No. 7," and in the following year named it "Golden Bronze." The variety is of the same general pointed oval shape as the Boston Marrow, viz, very sloping at stem end and almost blunt at blossom end. The surface is also wrinkled as in Boston Marrow, but in color is a dark grayish green, turning to a greenish bronze on the upper surface when fully ripe. The flesh is a bright golden yellow, fine grained, and of excellent quality. The variety is early, productive, hardy, and a good keeper.

Seed furnished by T. W. Wood & Sons, Richmond, Va

A. J. Pieters, *Botanist in Charge.*

Approved:
B. T. Galloway, *Chief of Bureau.*

[Circular sent to recipients of seeds of novelties and specialties included in Section 5a of the scheme of distribution.]

SECTION 5a.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the Department. In making the report please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

BEAN.

Thorburn's Prolific Market.

A foreign type of bean obtained by J. M. Thorburn & Co. from Vienna, Austria and first introduced by them in 1894.

It is claimed by the introducers to be an enormously productive variety, bearing its pods in thick clusters of 35 to 40 pods to a plant, and to be also exceedingly vigorous, healthy, and remarkably rust proof. The pods are light green in color, very long, and perfectly round, solid fleshed, and of a very soft and marrowy texture. The vines are very large and erect in habit, the leaves very dark, the seeds black, and season late. It is claimed by the originators that for productiveness, solidity of flesh, and roundness of pod it excels any variety now in cultivation.

Seed furnished by J. M. Thorburn & Co., New York.

TOMATO.

Success.

Originated in 1897 by M. M. Miesse, a market gardener and tomato specialist of Lancaster, Ohio. Introduced in 1900 by William Henry Maule under the name of "Maule's 1900" and in the following year called "Success."

This is an excellent, very large, smooth, deep scarlet variety, similar to many other recently introduced varieties, such as Noble, Century, and Marvel, but said to be superior to them in productiveness and smoothness of fruit and to be more free from any hard or green core. The variety does undoubtedly combine these qualities to a very large degree and, as claimed, is of excellent quality and a splendid sort for either the canner, trucker, or private gardener. The foliage is of the common large-leaved kind, and the vines are strong and vigorous. The season is second early. The fruits are a deep flat globe shape, or as nearly globular in form as it is possible to obtain a large tomato.

Seed furnished by M. M. Miesse & Son, Lancaster, Ohio.

MUSKMELON.

Rocky Ford.

This variety is a strain of the old and well-known Netted Gem, and has recently been developed and grown in immense quantities at Rocky Ford, Colo., whence it has been shipped extensively to all the eastern and northern markets. The variety has been made extremely popular by the Rocky Ford growers as much on account of the careful shipping they have practiced as for the fine melons they have been able to produce in their ideal melon-growing country. The development of the variety is obscure and disputed. It was first introduced by seedsmen in 1899.

The melon is very early and productive and the fruits oval shaped, shallow ribbed, densely netted, small in size, and mottled green and yellow in color. The flesh is green, of the very best quality, and, though not as rich as some others, is not surpassed in sweetness by any, while it is uniformly good and more universally liked than any other.

This seed was carefully selected by D. V. Burrill, of Rocky Ford, Colo., from melons of uniform size that were ideal in every particular.

RADISH.

GLASS.

A variety introduced by F. Barteldes & Co. and Northrup, King & Co., as claimed, about ten years ago, the former obtaining his seed from a Denver (Colo.) market gardener and the latter from Cincinnati market gardeners. The variety is considered by many to be identical with the Cincinnati Market and Long Scarlet Short Top varieties, but a few claim that it is not quite so long and that it possesses to a greater degree than the Long Scarlet Short Top the peculiar transparency which gives rise to its name.

The roots are very long and tapering, exceedingly smooth, free from root hairs, of a brilliant scarlet color, making it altogether the most handsome and showy of the long red varieties. The variety is medium early in season and remains fit for use fairly long before shooting to seed. The flesh is mild and tender. As the tops are very small, the roots can be planted close together.

Seed furnished by Northrup, King & Co., Minneapolis, Minn.

SQUASH.

GOLDEN HUBBARD.

A sport of the well-known Hubbard, introduced in 1896 by Storrs & Harrison Co. An exceedingly valuable introduction and entirely distinct. It is considered by many to be the best fall and winter variety yet introduced and has now become a standard sort. The variety is similar to the Hubbard, except in color, which is a deep orange yellow, with a slight greenish tinge at the extreme blossom end, and although somewhat smaller in size it is more productive than its parent. The variety is of large size, pointed oval in shape, extremely warty, and a good keeper. The flesh is fine grained, very dry, rich, sweet, and in color a deep orange extending clear to the rind, without the objectionable greenish tinge found in the Hubbard.

Seed furnished by W. Atlee Burpee & Co., Philadelphia, Pa.

A. J. PIETERS, *Botanist in Charge.*

Approved:
B. T. GALLOWAY, *Chief of Bureau.*

[Circular sent to recipients of seeds of novelties and specialties included in Section 6 of the scheme of distribution.]

SECTION 6.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the

Department. In making the report, please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

PEA.

Thomas Laxton.

Originated by Messrs. Thomas Laxton & Co., of Bedfordshire, England, and first catalogued by American seedsmen in 1901. Said to be a cross between a seedling of Gradus and a seedling from the extra early varieties.

This is another of the new and very desirable varieties of the large-seeded, large-podded, extra early class of peas which have followed upon the introduction of the Gradus in 1897. It is very much like that variety, but is said to be slightly earlier and hardier. The pods, however, are shorter and not so large and handsome, while in color they are darker, and in shape square instead of pointed at the end. The quality is very good, but not equal to Gradus, and partakes more of the flavor of the ordinary extra early varieties. Its great value lies in its large showy pods, combined with extreme earliness and fair hardiness of plant.

Seed furnished by Northrup, King & Co., Minneapolis, Minn.

BEET.

Ruby Dulcet.

A very popular beet in England. First introduced in this country in 1899 by Johnson & Stokes.

An especially valuable introduction, and very distinct from other globe-shaped beets in its greater depth. The color is a deep red, the shape a deep globe, very full at the top and holding its size well to the bottom, while the surface is very smooth and entirely free from root hairs, rootlets, or markings. The leaves are medium dark red in color and being very small and erect in habit, the variety is therefore suitable for close planting. The season is early, or about the same as Detroit Dark Red. The flesh is very dark and zoned with deep red and a lighter shade; the quality is fine grained, sweet, and tender.

Seed furnished by Johnson & Stokes, Philadelphia, Pa.

TOMATO.

Thorburn's Earliest.

Originated by J. M. Thorburn & Co., and introduced by them in 1902. This variety was obtained by selection of a number of English greenhouse sorts grown for several seasons out of doors in the vicinity of New York.

It is claimed by the introducers to be the earliest tomato grown and to be five days earlier than the Atlantic Prize, which is the most generally grown extra early sort. This variety is undoubtedly a splendid introduction and extremely early, but of small size. Compared to Atlantic Prize, it is considerably smaller in size but much superior to it in being smoother, less corrugated and scarred, and more of a globe shape. It is similar to Conference and to Bright and Early, but considerably earlier than either, and much larger than the latter. The plants have the fine leaf and habit of growth of the extra early varieties. The fruits are bright scarlet, flat globe shape, and perfectly smooth. Specially recommended for forcing, but a splendid outdoor sort also.

Seed furnished by J. M. Thorburn & Co., New York.

LETTUCE.

Half Century.

A very old variety of foreign origin, seldom catalogued by American seedsmen. John Lewis Childs, of Floral Park, N. Y., it seems, was the first American seedsman to catalogue it, or at least the first to claim for it any special superiority.

The plant is very dark green in color, of a peculiarly loose, flabby, half-heading habit. It is difficult to make it head well under any conditions, and on account of its behavior in this respect, as well as its weak growth and decidedly inferior appearance, it will never be a general favorite. Its value lies solely in its extra fine quality, for it is exceedingly brittle and tender and of unsurpassed sweetness. The quality is of that delicacy which is free from the buttery quality of some kinds, and the hard crispness, the coarseness, and the strong, slightly bitter quality of some other kinds. The leaves, which are exceedingly brittle but thick, are easily broken. The variety will not stand the least transportation, and is suitable for the home garden only.

Seed furnished by Vaughan's Seed Store, Chicago, Ill.

MUSKMELON.

Rocky Ford.

This variety is a strain of the old and well-known Netted Gem, and has been recently developed and grown in immense quantities at Rocky Ford, Colo., whence it has been shipped extensively to all the eastern and northern markets. The variety has been made extremely popular by the Rocky Ford growers as much on account of the careful shipping they have practiced as for the fine melons they have been able to produce in their ideal melon-growing country. The development of the variety is obscure and disputed. It was first introduced by seedsmen in 1899.

The melon is very early and productive, and the fruits small and oval shaped, shallow ribbed, densely netted, mottled green and yellow. The flesh is green, of the very best quality, and, though not as rich as some others, is not surpassed by any, while it is uniformly good and more universally liked than any other.

This seed was carefully selected by D. V. Burrill, of Rocky Ford, Colo., from melons of uniform size that were ideal in every particular.

A. J. Pieters, *Botanist in Charge.*

Approved:
B. T. Galloway, *Chief of Bureau*

[Circular sent to recipients of seeds of novelties and specialties included in Section 6a of the scheme of distribution.]

SECTION 6a.

The varieties included in this special distribution are either new or are not as well known as they should be. The seeds are sent out this year, accompanied by full descriptions of the varieties, in the hope that those who receive them will report the results of their trial to the Department. In making the report please use the blanks accompanying this circular and return them in the inclosed franked envelope, which requires no postage.

PEA.

Prolific Early Market.

Originated by N. B. Keeney & Sons, and first introduced by A. W. Livingston & Sons and William Henry Maule in 1901. The variety is descended from a plant found by Mr. Keeney in Extra Early about twelve years ago.

This valuable acquisition to the extra early varieties resembles Alaska, and like it and other extra-early, smooth-seeded sorts is of poor quality but hardy, which latter characteristic enables it to be planted much earlier and ripened pods obtained far in advance of the less hardy but better quality peas. The pods are very much larger and contain more peas, and the plant is considerably more productive than other extra-early varieties, is a great improvement over them in many respects and only three or four days later. The vine is tall and slender like Extra Early, but considerably larger. The pods are of medium size, light green in color, round, straight, and attractive.

Seed furnished by A. W. Livingston & Sons, Columbus, Ohio.

BEET.

RUBY DULCET.

A very popular beet in England. First introduced in this country in 1899 by Johnson & Stokes.

An especially valuable introduction, and very distinct from other globe-shaped beets in its greater depth. The color is a deep red, the shape a deep globe, very full at the top and holding its size well to the bottom, while the surface is very smooth and entirely free from root hairs, rootlets, or markings. The leaves are medium dark red in color, and being very small and erect in habit, the variety is therefore suitable for close planting. The season is early, or about the same as Detroit Dark Red. The flesh is very dark and zoned with deep red and a lighter shade; the quality is fine grained, sweet, and tender.

Seed furnished by Johnson & Stokes, Philadelphia, Pa.

TOMATO.

THORBURN'S EARLIEST.

Originated by J. M. Thorburn & Co., and introduced by them in 1902. This variety was obtained by selection of a number of English greenhouse sorts grown for several seasons out of doors in the vicinity of New York.

It is claimed by the introducers to be the earliest tomato grown and to be five days earlier than the Atlantic Prize, which is the most generally grown extra-early sort. This variety is undoubtedly a splendid introduction and extremely early, but of small size. Compared to Atlantic Prize it is considerably smaller in size, but much superior to it in being smoother, less corrugated and scarred, and more of a globe shape. It is similar to Conference and to Bright and Early, but considerably earlier than either, and much larger than the latter. The plants have the fine leaf and habit of growth of the extra-early varieties. The fruits are bright scarlet, flat globe shape, and perfectly smooth. Specially recommended for forcing, but a splendid outdoor sort also.

Seed furnished by J. M. Thorburn & Co., New York.

LETTUCE.

HALF CENTURY.

A very old variety of foreign origin, seldom catalogued by American seedsmen. John Lewis Childs, of Floral Park, N. Y., it seems, was the first American seedsman to catalogue it, or at least the first to claim for it any special superiority.

The plant is very dark green in color, of a peculiarly loose, flabby, half-heading habit. It is difficult to make it head well under any conditions, and on account of its behavior in this respect, as well as its weak growth and decidedly inferior appearance, it will never be a general favorite. Its value lies solely in its extra fine quality; for it is exceedingly brittle and tender, and of unsurpassed sweetness. The quality is of that delicacy which is free from the buttery quality of some kinds, and the hard crispness, the coarseness, and the strong, slightly bitter quality of some other kinds. The leaves, which are exceedingly brittle but thick, are easily broken. The variety will not stand the least transportation, and is suitable for the home garden only.

Seed furnished by Vaughan's Seed Store, Chicago, Ill.

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The melon is very early and productive, and the fruits small and oval shaped, shallow ribbed, densely netted, mottled green and yellow. The flesh is green, of the very best quality, and, though not as rich as some others, is not surpassed by any, while it is uniformly good and more universally liked than any other.

This seed was carefully selected by D. V. Burrill, of Rocky Ford, Colo., from melons of uniform size that were ideal in every particular.

A. J. Pieters, *Botanist in Charge.*

Approved:
B. T. Galloway, *Chief of Bureau.*

[Circular sent to recipients of bulbs.]

DIRECTIONS FOR PLANTING BULBS.

The bulbs sent herewith are of three kinds, viz, (1) hyacinth, (2) tulip, and (3) narcissus.

To obtain the best results, plant the bulbs as soon as received, in soil well loosened to a depth of at least 10 inches, setting them as follows: The hyacinth bulbs 7 inches apart and 4 inches deep, the tulip bulbs 5 inches apart and 4 inches deep, and the narcissus bulbs about 10 inches apart and 5 inches deep. If the hyacinths or tulips are to be grown in pots or window boxes, use rich, well-drained soil; place the pots or boxes in a dark room or cellar for a month or more after planting, or until the roots are formed, and then bring them into the light. Keep the soil in these pots or boxes well watered, but avoid overwetting, otherwise the bulbs may rot.

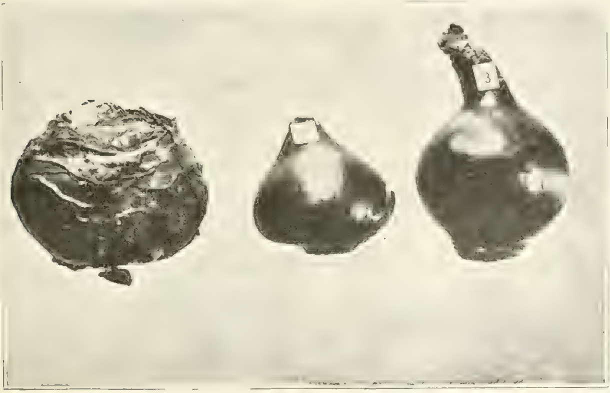


FIG. 5.—Hyacinth, tulip, and narcissus bulbs.

[Circular sent to recipients of cotton seed.]

DISTRIBUTION OF COTTON SEED IN 1903.

PLAN OF DISTRIBUTING THE VARIETIES.

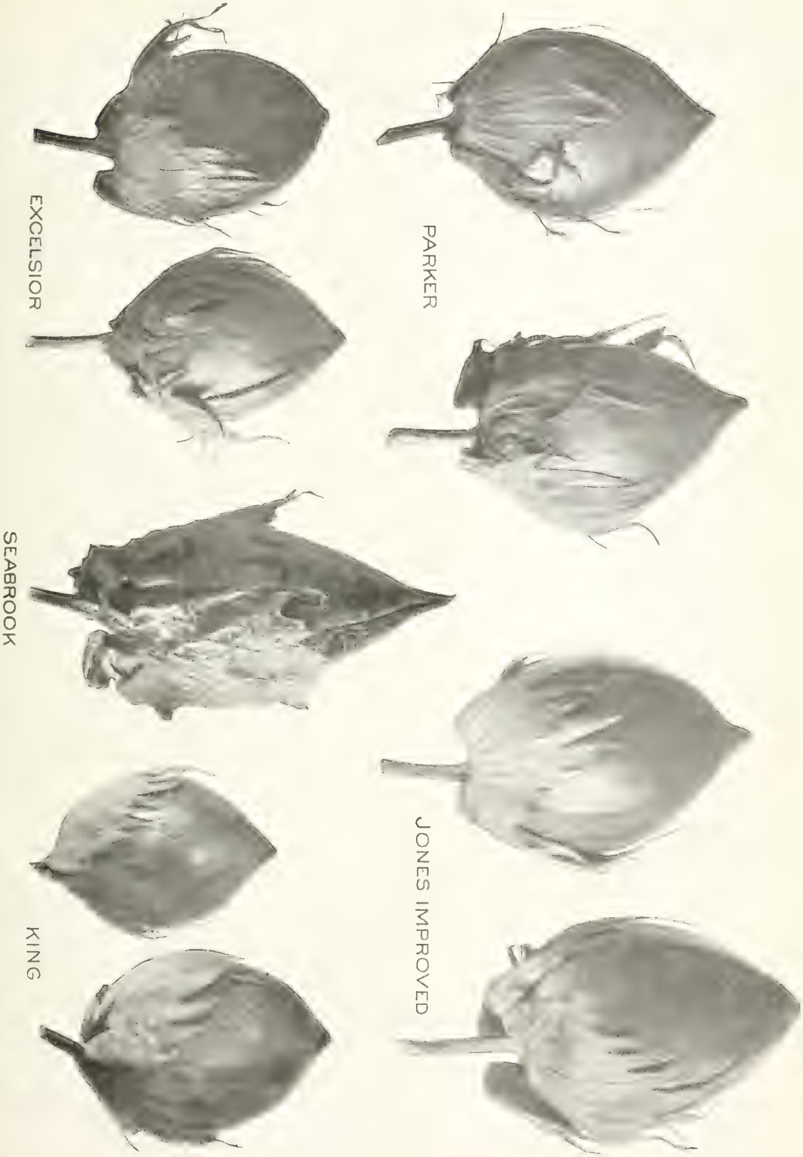
The Bureau of Plant Industry has in progress investigations in the improvement of cotton, and as a foundation for such work it is necessary to determine the varieties best suited to each section of the cotton belt. The distribution of cotton seed is thus arranged with the view of furnishing growers with seed of new varieties to test in comparison with the varieties they already grow. This will enable them to make comparisons and select varieties best suited to their climatic and soil conditions. Information regarding the success of varieties in different sections is as yet too meager to enable a judgment to be formed as to which will succeed best in a certain locality. In the distribution of cotton seed it is proposed to select, so far as possible, new and little-known varieties which have proved valuable in certain localities, and distribute the seed in such a way as to insure their being generally tested throughout the cotton States. It is intended at the end of the season to follow up each package with a circular in order to obtain information in regard to the success in various sections of the varieties distributed. Growers receiving the seed are urged to cooperate with the Department of Agriculture by making a careful test of the seed which is sent with this circular. In another part of the circular will be found descriptions of the varieties distributed and a statement of the points on which information is desired.

In the distribution the present season several special features have been introduced. The studies of the cotton industry which the Department has been prosecuting strongly indicate that the growing of long-staple cottons is destined to become much more general in the near future and should be encouraged. Seeds of Griffin and Allen Improved, two of the best long-staple Upland cottons, have thus been procured for distribution. A second special feature of the distribution the present season is the Rivers Sea Island cotton, a variety resistant to the serious malady known as wilt or black-root. This cotton has been produced as a result of breeding experiments conducted in conjunction with the Department of Agriculture. A special circular is sent out with the seed of this variety, and it is therefore not described herein. This seed will be distributed in the Sea Island sections of Georgia and Florida. Seabrook Sea Island cotton will also be sent to the same region.

The varieties of ordinary short-staple Upland cotton selected for distribution this year are Parker, Jones Improved, Excelsior, and King. The last-named variety has been procured particularly for distribution in the boll-weevil districts of Texas, because it is probably the earliest of all known varieties, and early ripening sorts have been found to escape damage by boll weevil to a large extent.

The varieties are to be distributed to the different Congressional districts as follows:

ALABAMA:
    First, Third, Fifth, and Eighth districts: Jones and Allen.
    Second, Sixth, Seventh, and Ninth districts: Excelsior and Griffin.
    Fourth district: Parker and Excelsior.
ARKANSAS:
    First, Second, Third, and Sixth districts: Parker and Allen.
    Fourth and Fifth districts: Jones and Griffin.
FLORIDA, First and Second districts: Seabrook and Rivers.


EXCELSIOR
PARKER
SEABROOK
JONES IMPROVED
KING

MATURE UNOPENED COTTON BOLLS—PARKER, JONES IMPROVED, MOORE EXCELSIOR, KING, AND SEABROOK SEA ISLAND. (NATURAL SIZE.)

GEORGIA:
First, Second, and Eleventh districts: Seabrook and Rivers.
Fourth, Sixth, Seventh, and Ninth districts: Excelsior and Allen.
Third and Fifth districts: Parker and Jones.
Eighth and Tenth districts: Parker and Griffin.

LOUISIANA:
Third and Fourth districts: Excelsior and Allen.
Fifth and Sixth districts: Parker and Griffin.

MISSISSIPPI:
Second and Sixth districts: Jones and Griffin.
First, Third, Fifth, and Seventh districts: Parker and Allen.
Fourth district: Excelsior and Griffin.

NORTH CAROLINA:
First, Third, Fourth, and Eighth districts: Parker and Excelsior.
Second, Fifth, Sixth, and Seventh districts: Excelsior and Jones.

SOUTH CAROLINA:
First district: Parker and Griffin.
Third, Fourth, Fifth, and Sixth districts: Excelsior and Griffin.
Second and Seventh districts: Parker and Allen.

TENNESSEE:
Third and Fourth districts: Parker and Excelsior.
Fifth and Eighth districts: Jones and Griffin.
Sixth, Seventh, Ninth, and Tenth districts: Parker and Griffin.

TEXAS:
First, Second, and Thirteenth districts: Excelsior and King.
Third, Fourth, Eighth, and Tenth districts: Parker and King.
Fifth and Sixth districts: King and Allen.
Seventh and Ninth districts: King and Griffin.
Eleventh and Twelfth districts: Jones and King.

OKLAHOMA: Excelsior and Allen.

DESCRIPTION OF VARIETIES DISTRIBUTED.

SHORT-STAPLE UPLAND VARIETIES.

JONES IMPROVED.

This is a big-boll Upland cotton (Pl. I), said to have been introduced into America from Algiers by Wyche brothers about the year 1857. The history of the introduction, as given by Mr. J. F. Jones, who has been instrumental in bringing the variety into prominence, is as follows:

> About 1853 two brothers of a family by the name of Wyche emigrated from Germany, one coming to the United States and the other going to Algiers, on the Mediterranean coast, to work for a French colony engaged there in growing cotton. About 1857 the Algerian brother sent a small package of cotton seed to his brother in the United States. Before the brother in this country had time to fully test the merit of the variety he died. The war between the States came on shortly afterwards, when neglect and lack of conveniences resulted in almost destroying any trace of the variety. In fox hunting over the Wyche plantation I discovered places here and there where there was a wonderful growth of this particular variety. By permission I went into the fields and selected some of the seed, having to assist me a Methodist minister by the name of Warren Beggarly, who later sold some of the seed of the variety to the Government. Beggarly died shortly afterwards and left the

work to me, and since 1877 I have been proprietor of the variety and have had charge of its distribution. From the records you will see that I have furnished seed of this variety to the Government since about 1884, and to our State agricultural farms since about 1877. I have preserved the variety and kept it pure.

Mr. Jones claims that this was the first big-boll, white-seeded cotton grown in this country, and that other big-boll types have been derived from it. Culpepper, a big-boll variety distributed last year, is said to be a hybrid of the Wyche (Jones Improved) and Dixon varieties. It has probably entered into the parentage of many of our best big-boll types.

The variety is recommended as deep-rooting, drought-resistant, and as withstanding adverse conditions with little injury. It is a large, robust, vigorous plant, producing heavily under ordinary conditions. It continues to grow late in the season and forms a good top crop when the conditions are favorable.

Plant vigorous and prolific, with wide spreading branches from near the base; upper branches usually short. Bolls large, 1¾ to 2 inches long, ovate, blunt pointed, 5-locked, opening well. Seeds 6 to 10 to the lock, medium large, weighing from 0.13 to 0.14 gram, covered with grayish fuzz, well covered with lint. Lint good for Upland, 1 to 1⅛ inches in length, strong. Per cent of lint 31 to 32 under ordinary conditions. Season medium late.

The seed of this variety distributed was grown by James F. Jones, at Hogansville, Ga., in the season of 1902.

PARKER.

Parker cotton (Pl. I) was originated by John M. Parker, sr., in Bolivar County, Miss., about 1868. It was produced by careful selection, and ever since its production has been grown on the extensive Parker plantations in preference to all other varieties. Mr. John M. Parker, jr., the present owner of the plantations, informs the writer that care has been exercised for years in selecting the seed and preserving the variety in a high state of productivity.

In a variety test at Columbia, S. C., in the season of 1902, this variety gave very excellent results. The plants were from 3½ to 4 feet high, vigorous, and well fruited. In season it was one of the earliest of about fifty ordinary sorts. The lint is very good for an ordinary Upland variety, being strong, hard, silky, and above the ordinary in length, averaging on Mr. Parker's plantation from 1⅛ to 1 3/16 inches long. Mr. Parker recommends the variety as hardy, vigorous, prolific, and easy to pick.

Plant of Peterkin type, having an erect central stem, with numerous lateral limbs. Bolls medium size, round or ovate, blunt-pointed, 5-locked, opening well. Seeds 7 to 9 per lock, medium size, gray, tufted, well covered. Lint long, 1⅛ to 1 3/16 inches, white, strong. Per cent of lint, 31 to 33. Season medium early.

The seed distributed by the Department of Agriculture was grown by John M. Parker, jr., on the plantation on which the variety originated, at Maxime, Bolivar County, Miss.

EXCELSIOR.

Excelsior is a variety of Upland short-staple cotton (Pl. I) which has become popular in certain parts of South Carolina, and was awarded a gold medal at the Charleston Exposition. The variety was produced in 1896 by taking seed from a sport of unknown parentage which exhibited desirable qualities. Since this time the seed has been selected with care to insure its coming true to type and to increase its production. Mr. Moore informs us that every year selections have been made from an experimental breeding patch, culling out inferior stalks and selecting seed from nothing but the best. Under this rigorous selection the plants, it is claimed, have increased in productivity and have become uniform in type, showing now little tendency to sport or revert to a poorer type.

This variety Mr. Moore recommends as being very prolific and giving large yields. In tests at Columbia, S. C., in the season of 1902, the plants averaged about 3½ feet high and were well bolled.

Some doubt exists as to what name can be correctly applied to this cotton. According to Prof. S. M. Tracy, in a statement published in Bulletin 33, United States Department of Agriculture, Office of Experiment Stations, issued in 1896, Mr. C. R. Ezell, of Eatonton, Ga., originated by selection from the variety New Era, a strain to which the name Excelsior was given. Mr. Moore's Excelsior, according to his statement, was originated in 1896, the year of Professor Tracy's publication. Mr. Ezell's Excelsior would therefore have the priority of name. Owing to this confusion of names we would suggest that Mr. Moore's Excelsior be referred to as *Moore Excelsior*, or simply as the *Moore* cotton.

Plant of Peterkin type, with one main stem and spreading lower limbs, the other lateral limbs being comparatively short. Shows some tendency to develop bolls in pairs or clusters. Bolls medium small, ovate or spherical, blunt pointed, 4 to 5 locked, opening well. Seeds small, weighing 0.09 to 0.10 gram, gray, tufted, 7 to 9 per lock. Lint, good ordinary short staple about 1 inch in length. Per cent of lint 32 to 33. Season medium.

The seed of this variety distributed was grown by Mr. C. F. Moore, Bennettsville, S. C., in the season of 1902.

KING.

King, or King's Improved as it has been called, is a very early variety of Upland cotton (Pl. I), originated by T. J. King, of Louisburg, N. C. In attempting to improve the cotton grown on his plantation, Mr. King made tests of very many varieties, but found none that exactly met the requirements as he recognized them. "I therefore determined," he states, "to try to mix the two kinds which, between themselves, appeared to possess all the essentials desired, and get a composite cotton that combined the good qualities of both varieties." Such a combination he claims to have secured in his King's Improved. The variety has been widely distributed and tested, and is probably as generally known as any other cotton variety. It is very distinct from any other of the well-known varieties.

King is regarded as one of the best varieties for the northern part of the cotton belt, where the season is too short for late varieties. It is the variety most generally planted late in the spring, after oats, as so-called stubble cotton, its short season enabling it to mature a good crop even in the short time then available. The earliness of the variety and its consequent bearing on the boll-weevil question is the principal reason for selecting it for distribution the present season. Observation has shown that the damage caused by the boll-weevil increases as the season advances. In the early part of the season the numbers of the weevils are few, but as the season advances they steadily increase, and become so abundant in the latter part of the season that in badly infested fields hardly a boll is permitted to reach maturity. Many of the bolls which are formed before the weevil has become abundant mature without injury, and the writer has observed many particularly early plants, which, owing to their earliness, escaped damage to a considerable degree and matured a fairly good crop. This feature suggests that one of the most important factors in the control of the boll-weevil is to utilize early-maturing varieties. King is probably the earliest fixed variety known, and as it has given excellent results in tests at the Mississippi Experiment Station, it will probably do well in Texas also. Its use in boll-weevil sections to avoid the ravages of this pest is experimental, and the outcome will be watched with great interest. It is of special importance that growers note the yield of this variety in boll-weevil sections in comparison with other sorts, and be prepared next fall to furnish the Department of Agriculture with a statement of the results obtained. To obtain the best results in sections where the boll-weevil is prevalent, the seed should be planted as early as the season will safely permit.

Plant 2½ to 5 feet high, rather spreading in habit, with numerous limbs gradually decreasing in length from below upward. Bolls small, nearly round, with small blunt point, 4 to 5 locked, opening well. Seeds medium size, weighing from 0.10 to 0.11 gram, covered with brownish or greenish fuzz. Lint white, strong, three-fourths to 1 inch in length. Per cent of lint usually about 33. Season very early.

The seed distributed by the Department of Agriculture was grown by the originator of the variety, Mr. T. J. King, at Louisburg, N. C., in the season of 1902.

Long-Staple Upland Varieties.

ALLEN IMPROVED.

Allen Improved (Pl. II) is a variety of cotton originated in Claiborne County, Miss., in 1899, by James B. Allen. Other and similar varieties were earlier introduced by Mr. Allen under the names Allen Yellow Bloom and Allen Hybrid, which have become distributed throughout the country. Allen Improved was distributed to some extent in 1900, but up to the present time has not been generally distributed. It is said by Mr. Allen to be a cross between his Yellow Bloom and Hybrid. The variety is recommended because of its productiveness and its long staple. The bolls when ripe open up wide, like ordinary Upland, letting the cotton hang out and making it easy to pick. It is said to pick easier than the Allen Hybrid and to have a stronger fiber. Mr. Allen states that it has stood the weather better for the past three years than any other variety of long staple he has ever planted, not rotting in wet weather like the Yellow Bloom. It gives an average yield per acre of about 1,500 pounds of seed cotton and from 300 to 400 pounds of lint. The crop of 1900, Mr. Allen states, sold for 17 cents per pound net; that of 1901 for 15 cents; and that of 1902, from which the seed distributed by the Department was taken, for from 16½ to 17 cents. Mr. Allen's cotton is ginned on a saw gin.

Plant 3 to 6 feet high, compact, branching like Truitt, with two or three long basal limbs and one main central stem. Bolls of Upland type, medium size, slightly pointed, 4 to 5 locked, opening wide. Seeds medium large size, weighing 0.14 to 0.15 gram, gray tufted, 7 to 9 per lock. Lint white, fine, and silky, 1½ to 1¾ inches long, fairly strong. Per cent of lint 27. Time of ripening midseason.

The seed distributed was grown by James B. Allen, the originator of the variety, at Port Gibson, Miss., in the season of 1902.

GRIFFIN.

Griffin is a long-staple, big-boll Upland cotton (Pl. II), produced by John Griffin at Refuge plantation, near Greenville, Washington County, Miss. The first selection was made in the fall of 1867, and the seed first planted in the spring of 1868. After about ten years of selection some seeds were distributed among friends in the vicinity of Greenville, and a few bushels were sold. The variety, however, has never been generally distributed. Regarding its origin, Mr. Griffin says:

> The variety resulted from a cross of the old "Green Seed" cotton with Sea Island, the cross being made to give a tendency to the Green Seed to produce a longer and finer fiber. The hybrid was from 12 to 16 feet high and very unproductive. It was recrossed five years in succession with pollen of the constantly improved Green Seed. This resulted in reducing the stalk to within a few inches of the length of that of Green Seed, in giving it a larger boll, and in making it nearly as prolific. Every successive crossing was made on stalks which least resembled the Sea Island form and most nearly approximated the Sea Island lint.
>
> The selection of the cotton has continued without intermission from 1867 up to the present time (1902). Selection was practiced five years in succession before hybridization was employed, and continued constantly while the latter was going on. There was at first little difference between the two hybrids produced by crossing Sea Island bloom with Green Seed pollen and Green Seed bloom with Sea Island pollen.

The Sea Island was a little more vigorous and had a few more bolls. Near the end of the five years through which both were crossed with constantly improved Green Seed, the Sea Island far surpassed the Green Seed, which was puny and hard to fertilize with the same pollen which had acted well on the other. The lint of the original Green Seed averaged about 1 inch in length. It gained about one-eighth of an inch in length in five years of selection, making it about 1⅛ inches when first crossed with Sea Island. The first cross gave it a length of about 1¼ inches, the lint, furthermore, being much finer than that of the original Green Seed.

The character of the stalk is still like that of Green Seed, though more compact. The boll is larger, 65 weighing a pound. The lint pulled from the seed by the fingers averages about 2 inches in length, and is very fine. Ginned on a saw gin, it generally averages from 1⅜ to 1½ inches in length. The Griffin cotton is earlier than the Green Seed.

Griffin cotton is without question one of the very best long-staple Upland sorts that has ever been produced. It has been grown for two successive years in tests conducted by the Department of Agriculture at Columbia, S. C., and has given excellent results and attracted considerable attention. Its length of staple here averaged about 1½ to 1¾ inches. Unfortunately the lint is not very uniform in length, and is inclined to be low in strength. In size of boll, ease of picking, and productiveness the variety is very good. A peculiar feature of Griffin cotton is its tendency to produce a few very long fibers. Frequently a group of several dozen fibers will reach a length of 2½ or 3 inches.

The average yield per acre at Mr. Griffin's plantation, on Mississippi bottom land not over 20 years old, is about 400 pounds of lint cotton. On fresh land of this sort it yields about 500 pounds of lint cotton per acre. The proportion of lint to seed cotton, Mr. Griffin states, is about 28 per cent. Professor Tracy, at the Mississippi Experiment Station, gave the per cent as 28 to 29. Professor Duggar at the Alabama Experiment Station obtained 29.2 per cent from the crop grown at Auburn, Ala. The crop produced at Columbia, S. C., the past season gave about 29 per cent.

As an indication of the market value of Griffin cotton, Mr. Griffin gives results of sales as follows: When short staple was selling at 5 cents per pound Griffin sold at 8¾ cents. Last year (1901) it sold for 12 cents, against 8 cents for short staple of the same grade. In 1900, when short staple cotton was quoted at between 8 and 9 cents, Griffin sold for 15 cents. A part of the crop of the present year (1902), from which the seed distributed was taken, sold for 14 cents, the average price for short staple of the same grade being 8 cents.

Mr. Griffin states that his crop is regularly ginned on a saw gin. In the crop this year the first 7 bales averaged 1½ inches in length and the last 7 bales 1⅝ inches.

Plant vigorous and prolific, with main central stem and several large spreading limbs below; foliage pale green. Bolls medium large, ovate, blunt-pointed, 4 to 5 locked, opening well. Seeds of medium size, weighing about 0.12 to 0.13 gram, gray tufted, 7 to 10 per lock. Lint white, fine, and silky, rather variable in length, ranging from 1½ to 2 inches. Per cent of lint about 28 to 29. Season medium.

The seed distributed by the Department of Agriculture was grown by the originator of the variety, Mr. John Griffin, at Greenville, Miss., in the season of 1902.

Sea Island Varieties.

SEABROOK.

This variety (Pl. I) was originated ten or twelve years ago by E. L. Rivers, James Island, S. C. Its selection and improvement have been carried on since that time by the present owner, Mr. F. P. Seabrook, of James Island, who has given the most careful attention to the fixing of the desired qualities, the aim being the production of a prolific bearer of medium quality, with a large proportion of lint to seed. The method of selection employed by Mr. Seabrook, which is similar to that of most of the Sea Island planters, is as follows: Several of the best plants in his field are selected and marked. Each of these is picked by itself, the seed cotton weighed, and the lint weighed after ginning to determine the ginning average. The staple is examined critically as to length, fineness, strength, uniformity, and softness. Finally the best plant is selected and the others discarded. The seed from this single stalk is planted by itself, one seed in a hill, and usually produces about 500 plants. The seed from these plants is used to sow a field of about 5 acres, from which the general crop is planted the fourth year. A new plant is chosen from the select field each year, so that the process of improvement is continuous.

Plant of compact habit, prolific, and resistant to disease. Bolls of good size, long and pointed, 3-locked, opening well for Sea Island. Lint 2 inches long. Per cent of lint about 28 to 29.

The seed of this variety distributed was grown by Mr. F. P. Seabrook, James Island, S. C., in the season of 1901.

RIVERS.

The Rivers Sea Island cotton, which is immune to the serious malady known as wilt or "black-root," was produced as a result of special breeding experiments conducted by Mr. E. L. Rivers, of James Island, S. C., in conjunction with the Department of Agriculture. It is highly recommended for cultivation in the Sea Island districts of Georgia and Florida on all soils infected with wilt. A special circular is distributed with the Rivers cotton, and this variety is referred to here simply to show the general plan of the entire cotton distribution for the season. A careful description of the variety and of the experiments leading to its production appears in Bulletin No. 27, Division of Vegetable Physiology and Pathology of the U. S. Department of Agriculture, by Mr. W. A. Orton.

METHODS OF CULTIVATION AND GINNING.

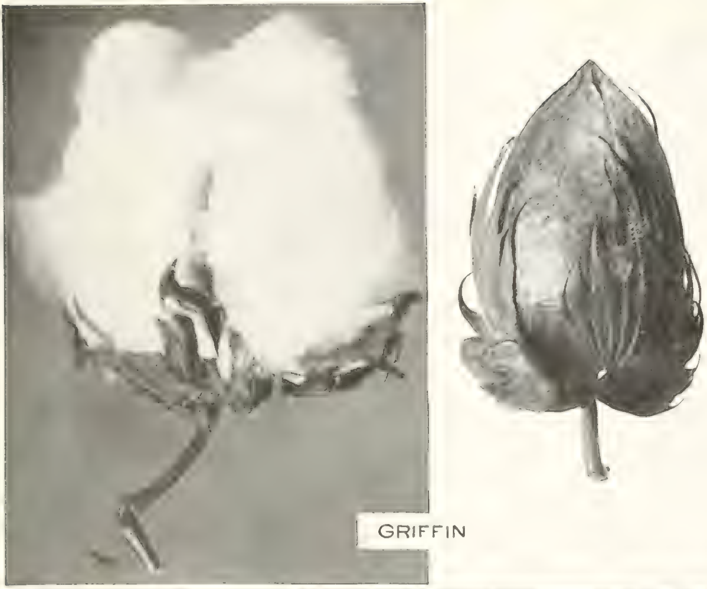
SHORT-STAPLE UPLAND VARIETIES.

The methods of cultivation which should be pursued in growing the varieties of short-staple Upland cotton distributed are the same as those used for any ordinary Upland cotton. No exact directions can be given with respect to the distance apart of the rows or the distance between the plants in the row, as the space required by each plant is determined by the richness of the soil in each case. Jones Improved, King, Excelsior, and Parker are all quite similar in size and habit of growth. Under ordinary conditions satisfactory results would be obtained with these varieties by planting the rows 4 feet apart and the plants from 18 to 24 inches apart in the row. On rich soil this distance should be somewhat increased, while on sterile land closer planting would be desirable.

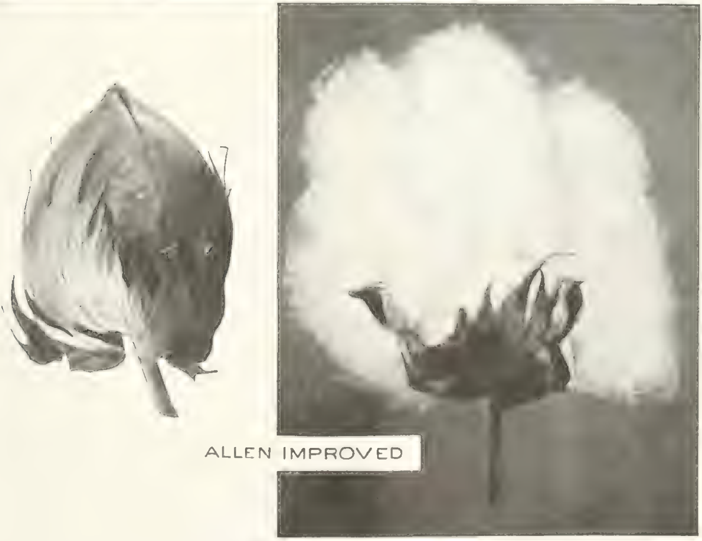
LONG-STAPLE UPLAND VARIETIES.

Allen Improved and Griffin, while producing a long, fine staple, are in size and general appearance very similar to ordinary short-staple varieties such as Jones Improved and Truitt, and the same cultural methods are to be recommended as are used with the ordinary short-staple sorts. In picking, preserving, and ginning, however, more care is required if the highest market price is to be realized. Greater care should be exercised in the picking to avoid getting the fiber mixed with fragments of leaves, bolls, etc. Fiber from immature and weather-stained bolls should also be discarded. Pickers familiar with ordinary cotton methods are liable to be too careless in their endeavor to gather large quantities and increase their wages thereby. In fine grades of long-staple Upland cotton it would probably also be found desirable to spread the seed cotton on a platform in the sun for a few hours to dry before storing it.

The difficulty of properly ginning long-staple Upland cottons has been considered an impediment to their general cultivation. It is generally recognized that long-staple Sea Island sorts require to be ginned on a roller gin, as the saw gins tear and break the fiber to such an extent as to greatly reduce its value. It is also very generally supposed that the long-staple Upland cottons require to be ginned on a roller gin, and this understanding has prevented many from attempting to grow these cottons, as roller gins are ordinarily accessible only to growers in regions where Sea Island cotton is cultivated Experience has shown, however, that long-staple Upland cottons may be ginned on ordinary saw gins if care is used in the process. Before ginning these cottons the gin saws should be sharpened square across the teeth and then dulled somewhat by use in ginning ordinary short



GRIFFIN



ALLEN IMPROVED

MATURE UNOPENED AND OPENED COTTON BOLLS—GRIFFIN AND ALLEN IMPROVED (NATURAL SIZE).

staples. It is also important to run the gin at a lower rate of speed than in ginning ordinary short-staple cottons. If these precautions are observed the long-staple Upland cottons may be very satisfactorily ginned on any ordinary saw gin. As previously stated, Mr. Griffin and Mr. Allen have regularly had their crops ginned on ordinary saw gins, and the product has uniformly sold at from 14 to 16 cents or more per pound.

It is also important that growers of long-staple Upland cottons give special attention to the marketing of the product. The writer last season saw several bales of long-staple Upland cotton sold to a buyer at a small interior town in South Carolina for 10 cents which were certainly equal to bales of similar cotton which he saw sold in the New Orleans market the week following at 15 cents, when ordinary cotton was selling at 8¼ cents. Many of the failures with long-staple Upland cotton have been due to the lack of experience on the part of the grower in the matter of marketing. Many buyers take advantage of the growers' ignorance and purchase cotton for 10 cents that is worth 15 cents and realize the difference themselves. Until buyers inform themselves on the value of long-staple cotton and pay reasonable prices, it will have to be consigned to general long-staple markets such as New Orleans, Savannah, Charleston, etc., or to some of the large New England markets.

SEA ISLAND VARIETIES.

The Seabrook selection of Sea Island cotton is adapted to light, sandy land of good fertility. It is planted in rows 5 feet apart, with a distance of from 18 to 20 inches between the plants in the row. Greater care must be given to the cultivation of Sea Island than is usually given to Upland cotton. The land should be thoroughly prepared and well fertilized. A suitable rotation with corn, cowpeas, peanuts, or other crops should be practiced in order to avoid the exhaustion of the soil produced by many successive cotton crops. Cultivation should be very frequent. In the Sea Islands the cotton is cultivated on an average of once a week until August. Here the cotton is grown on high beds and the soil is drawn up around the plants in cultivation. This method is not recommended for Georgia and Florida, however, where the more economical method of level culture will probably pay the best.

Particular care is necessary in picking and handling Sea Island cotton in order to obtain the highest price. Sea Island cotton requires to be picked often—every week or ten days—in order to avoid staining by the weather. All trash, bits of bolls, immature and diseased or yellow locks must be picked out by hand. The seed cotton should be spread on a platform and exposed to the sun for several hours to dry before storing. It must be ginned on a roller gin and be packed carefully in bags without high pressure.

HOW TO GROW PURE SEED OF GOOD QUALITY.

It is a well-known fact that varieties of cotton become mixed and impure unless special care is taken to prevent crossing with other varieties. If growers receiving seed of any of the varieties sent with this circular desire to grow the same variety another year, precaution should be taken to plant the seed in an isolated patch, situated as far as possible from any other varieties. It should be at least a quarter of a mile from any other cotton and preferably in a field surrounded by a forest, particularly on the side nearest to other cotton fields. Before any seed is gathered for planting all plants which are not true to the type of the variety should be carefully weeded out.

If it is desired to keep the variety up to its full productiveness and better adapt it to local conditions, the planter may easily accomplish this by following a simple and inexpensive method of selection. Before beginning the picking, go over the patch carefully and select and mark with a white cloth the best plants; that is, those most productive, earliest in ripening, and having the largest, best formed, and most numerous bolls. Care should also be exercised to select plants that are true to the type of the variety. Before each picking send a careful man over the patch to pick the seed from the selected plants. Preserve such seed separately, gin it separately to avoid mixing, and use this to plant the crop the next year. If this simple method of selection is carried out each year, the yield will doubtless be greatly increased, and as much or more added to the crop than would result from special fertilization or cultivation, though these factors should by no means be neglected. The importance of careful seed selection is seldom fully recognized, and growers are urged to give this factor of cotton culture more careful attention.

HERBERT J. WEBBER,
Physiologist, in Charge of Laboratory of Plant Breeding.

Approved:
A. F. WOODS,
Pathologist and Physiologist.

REPORT OF RESULTS DESIRED FOR PUBLICATION.

In order to determine the comparative values of the different varieties of cotton in various parts of the United States, the growers receiving this seed are requested to give it a thorough trial in comparison with the variety or varieties that they generally grow, and be prepared in the fall of 1903 to report the results of the test to the United States Department of Agriculture. A report will then be requested covering the following points:

(1) Character of the soil.

(2) Character of the season.

(3) Total yield of seed cotton produced. (This should be determined by actually weighing the product.)

(4) Total yield of lint produced. (Determined by actual weighing.)

(5) Size of patch grown. (Determined by actual measurement.)

(6) Yield per acre, estimated from the patch grown.

(7) Is the variety to be classed as excellent, good, fair, or poor for your section?

(8) Name of the variety ordinarily grown by the planter making the test.

(9) Yield of ordinary variety this year on same soil as the variety under consideration.

It is especially requested that growers carefully note the points enumerated above, in order that they may secure the necessary data and be ready to supply accurate information when it is called for next fall. If sufficiently accurate data are furnished, a report will be compiled and issued giving the results of the various trials in all sections, and this report will be sent to all planters cooperating in the experiment. In this way it is hoped to obtain valuable and reliable information regarding the varieties best adapted to various sections of the cotton belt.

Growers receiving this seed, who are willing to coöperate with the Department of Agriculture in making the above test, are requested to fill in the accompanying franked postal card, which requires no postage, as soon as the seed is received, and return the same to the Department.

A. J. Pieters,
Botanist in Charge.

Approved:
B. T. Galloway,
Chief of Bureau.

[Circular sent with seed of Rivers Sea Island cotton.]

RIVERS SEA ISLAND COTTON.

(*A variety resistant to the wilt disease or "Black-root."*)

HISTORY OF THE VARIETY.

This variety, the seeds of which are now distributed for the first time, was originated in connection with the investigations of the United States Department of Agriculture on the cotton wilt, a disease which has done great damage in the South. All other methods of treatment having failed, an effort was made to produce a resistant variety. This was based on the observation that some plants remained healthy, even in the worst infected places, and it was thought that the seed from such stalks might produce other resistant plants. This was found to be the case, and several strains have been produced in this way by saving seed from healthy plants in the worst diseased areas. The seed of the best of these resistant strains is distributed with this circular, the seed having been grown by special arrangement expressly for the Department of Agriculture. Other selections made by the Department or under its direction are also being grown and tested, and will be used for future distribution.

The Rivers cotton was originated in cooperation with the Department of Agriculture by Mr. E. L. Rivers, James Island, S. C., who in 1899 saved the seed of a single plant which had survived the disease, while all surrounding plants had been killed. This seed Mr. Rivers planted in a single row in a badly infected area. The result is shown in the accompanying illustration. In the resistant row not a single plant died, while the adjoining rows planted with ordinary seed were almost totally destroyed.

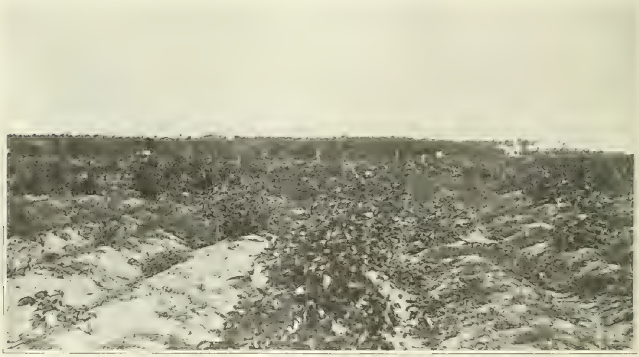


FIG. 6.—Row of Rivers Sea Island cotton in wilt-infected field, planted with rows of ordinary Sea Island cotton.

Sufficient seed was obtained from this row to plant an acre the next year (1901). This land was also infected with the cotton wilt, but only two or three plants became affected, showing the great resistance of the new variety. In 1902, 15 acres were planted. This land was badly infected with wilt and previous crops had been nearly destroyed in portions of the field, so that the land had been abandoned for cotton. The Rivers cotton proved as resistant here as in the previous years. An occasional plant became diseased and was pulled up, but the field as a whole was perfectly healthy and produced a large crop.

These three successful trials of this variety, corroborated by numerous experiments carried on by the Department of Agriculture with both Sea Island and Upland cotton and by the experience of several cotton planters, demonstrate that the wilt can be overcome by the use of resistant varieties, and this seed is distributed this year in Georgia and Florida to enable the farmers to test its merits and grow for themselves a stock of seed for future planting.

DESCRIPTION OF COTTON WILT.

The especial feature of this variety is its resistance to the wilt, and since some who receive the seed may not be familiar with that disease, a brief description of it is included here. For more detailed information write to the Department of Agriculture at Washington for Bulletins 17 and 27 of the Division of Vegetable Physiology and Pathology.

The Wilt Disease is also known as "Blight" and "Black-root." It is injurious to Sea Island cotton on the Sea Islands of South Carolina, and in southern Georgia and in Florida, and to Upland cotton over wide areas in several States. It is worst on sandy soils, where it persists year after year. Prominent symptoms are the wilting of the plants, which are dwarfed or killed, the brown discoloration of the inner wood of stem and root, and a tufting of the small rootlets.

The wilt is caused by a parasitic fungus in the soil, which enters the roots and grows upward through the water-carrying vessels of the stems, which it clogs. It is aggravated by continuous cropping in cotton, but can not be remedied by rest or rotation, since the fungus can live in the soil for an indefinite time after it has once obtained a foothold. It is not due to the poverty of the land nor to the use of commercial fertilizers, and can not, so far as known, be cured by adding any fertilizer or other substance to the soil.

CONTROL OF THE WILT.

The only remedy known is the use of resistant varieties. When land is badly affected by wilt and seed of resistant cotton can not be had, some other crop than cotton should be planted.

In all cases, even where the disease does not occur or where a resistant variety is available, a rotation of crops is to be recommended, such as corn with cowpeas or peanuts; second, velvet beans; third, cotton; or, first, corn with cowpeas or peanuts; second, oats followed by cowpeas; third, cotton.

DIRECTIONS FOR PLANTING.

In order to fully test the resistant qualities of the variety, this seed should, if possible, be planted on land where cotton has in previous years suffered badly from wilt (black-root). Do not plant Upland cotton near the Sea Island. Much of the "running out" of the long staple cotton in south Georgia is due to accidental hybridization with neighboring fields of short staple cotton. Since only a small quantity of seed can be had, unusual care ought to be taken in planting to make the seed go as far as possible. The land should be well fertilized and cared for in order to produce a large crop of seed. The Rivers cotton is resistant to wilt, but not necessarily so to rust and other troubles due to poor soil. To secure the best results, therefore, plant the seed on good soil and use from 400 to 600 pounds per acre of commercial fertilizer or its equivalent in stable manure or compost.

In land of ordinary fertility plant in rows 4 feet apart, with the plants 18 inches apart in the row. In rich soil make the rows 5 feet apart, with 20 to 22 inches between the plants. The Rivers cotton is a low, compact variety, and can be planted closer than the average Georgia Sea Island cotton. To economize seed in planting, drop by hand 3 to 5 seeds in a hill, cover lightly, and thin out to one in a place.

In order to give an exact report at the end of the season, the field where this seed is planted should be measured and the yield determined by actual weighing when the crop is picked.

PICKING.

In picking Sea Island cotton much more care should be taken than is necessary with the Upland cotton. Pick often to avoid injury by the weather. Sun the cotton on a low arbor after picking to dry it, and sort out all trash, yellow, and immature cotton, etc., before ginning, as all these impurities injure the sale of the lint. The high prices obtained for the best grades of Sea Island cotton are due in part to the extreme care taken to remove all trash before marketing.

If your trial of this variety results satisfactorily, save all the seed carefully, as it will be difficult to get more from any source. Gin the cotton separately and clean the gins to avoid mixture with inferior varieties.

CHARACTERS OF THE RIVERS COTTON.

Plant resistant to wilt, vigorous, compact, pyramidal, branching near the base; limbs small, close-jointed, bearing heavily; bolls medium size, 3 to 4 lobed; seed small, black, well covered; lint 28 per cent; staple 2 inches long, cream-white, fully to extra fine. Time of maturing, early.

CONTINUAL SELECTION NECESSARY TO MAINTAIN QUALITY.

The qualities of resistance, bearing, etc., characteristic of this cotton, will be found to be thoroughly fixed in the seed distributed. It can not be expected that they will be maintained indefinitely, however, unless careful annual selection of seed is practiced. Though the variety is highly resistant to wilt, there will be occasional individuals reverting to the original type and becoming attacked by the disease. All such should be weeded out and destroyed.

The following method of selection is recommended for keeping up the quality of the variety:

1. *To obtain seed for the main crop.*—Pull up and destroy all diseased or inferior plants and all hybrid or barren stalks, saving seed only from good plants in the general field.

2. *To secure an improved stock for future planting.*—Select from the general field a few plants of the greatest excellence, marking them with a cloth. Leave these unpicked till the middle of the season, then compare them critically with reference to bearing, length, and quality of staple, resistance to wilt, etc., and *choose from this number a single plant which combines the most desirable qualities.* Save all the seed carefully and plant separate from the main crop the next year, one seed in a hill, to secure as great a yield as possible. This cotton planted by itself each time will give sufficient seed the third year to plant the whole crop. This selection should be carried out every year. The propagation from single plants insures a uniformity that can be secured in no other way.

This is the method practiced in the Sea Islands, and if it were done in Georgia and Florida there would be less trouble with the "running out" of the cotton.

W. A. Orton,
Assistant Pathologist.

Approved:
A. F. Woods,
Pathologist and Physiologist.

REPORT RESULTS.

Special attention is called to the fact that this is a new variety of great value, and that it can not be bought in the market at any price. For this reason farmers receiving this seed should plant it with care and save the seed.

It is desired to know the results of all trials of the Rivers cotton, and every farmer who receives seed is requested to return the accompanying card with his name and address, signifying his willingness to report at the end of the season. Blanks will then be sent out to be filled and returned. The Department wishes to continue the work of originating and distributing wilt-resistant varieties adapted to the requirements of the various cotton-producing sections, and the active cooperation of farmers will be of great assistance.

A. J. Pieters,
Botanist in Charge.

Approved:
B. T. Galloway,
Chief of Bureau.

[Circular sent to recipients of seed of Sea Island Cotton No. 224.]

SEA ISLAND COTTON NO. 224.

U. S. Department of Agriculture.
Bureau of Plant Industry,
Washington, D. C., February 1, 1903.

Dear Sir: We send you herewith one peck of seed of Sea Island cotton "No. 224." This is a selection resistant to the wilt disease. It is distributed for trial under our Department number rather than as a named variety, but if it proves desirable to continue its cultivation, a name will be given to it later.

It was originated by selecting from a field badly affected by wilt two plants that had remained healthy. The seed obtained was planted on wilt-infected land the two years following, where it continued to resist the disease, although adjoining cotton was killed. These two successful trials indicate that its wilt resistance is well fixed, and it only remains to establish in this strain the desired commercial qualities, such as length and fineness of staple, uniformity, and productivity.

"No. 224" was developed from one of the coarser kinds of cotton grown on the Sea Islands, and more attention was paid to securing wilt resistance than fine quality. For this reason it is not equal to the best varieties grown on the Sea Islands, though it is of the grade of cotton for which there is most demand in the market. The price obtained for the crop of 1902 was 24 cents per pound, but the factor informed us that it was marketed "in such a bright and showy condition that it was placed on that account in a higher grade than its staple warranted." These facts are stated plainly in order that the planters who test it may not be disappointed in the results. The Department recommends it for its wilt resistance only, but believes that it is worthy of trial as a basis from which desirable strains can be developed by the methods of selection familiar to Sea Island planters. The fact that this is not a fine cotton should not be taken as an indication that quality need be sacrificed in securing resistance to wilt. Our experience leads us to believe that wilt-resistant strains can be obtained of any degree of fineness desired, depending on the quality of the plant chosen at the beginning of the selection.

The method of selection that we have found to give best results in breeding wilt-resistant varieties is essentially the same as that usually practiced for improvement of quality. It is necessary that the first selections should be made in a field known to be thoroughly infected with the wilt disease, so that every healthly plant can be assumed to be resistant. Select only those plants that show no trace of the wilt disease. Several of these most prominent resistant plants should be marked and examined critically. Eight or ten that have the finest and longest staple and are most productive should be retained, and the seed of each plant kept separate. The next year these lots of seed

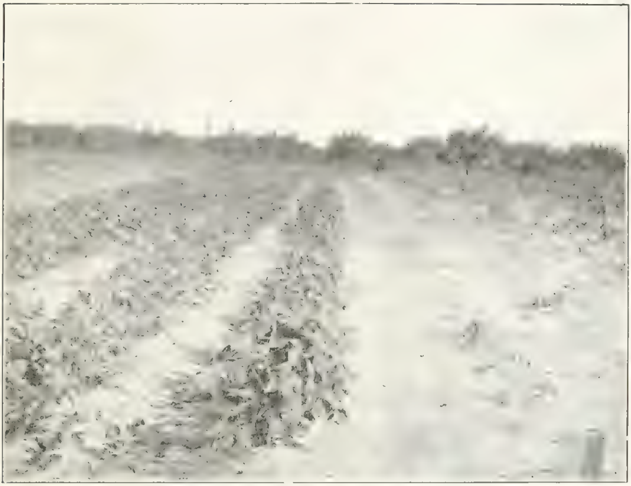


FIG. 1.—FIELD INFECTED BY WILT AND ROOT-KNOT.

Iron cowpea, resistant; Speckled cowpea, killed.

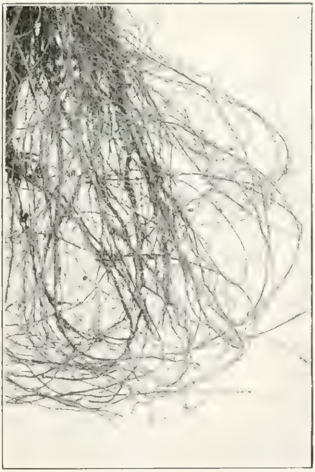


FIG. 2.—ROOTS OF IRON COWPEA.

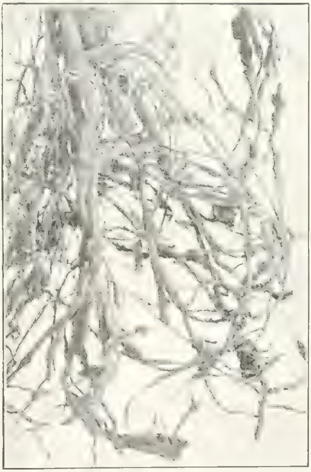


FIG. 3.—ROOT-KNOT ON WONDERFUL COWPEA.

From adjoining rows in the same field.

should be planted side by side on badly infected land and the progeny compared carefully with especial reference to power shown of transmitting the resistant quality. If the descendants of any plant show many diseased stalks, the whole selection should be discarded. It will be found that in the most resistant strains almost no susceptible plants will appear. Of the resistant strains, only the one having the best commercial qualities need be retained after the second year; but the first year it is well to start with several plants, as some often turn out to be nonresistant.

To insure the maintenance of uniformity and good quality in the resistant variety, the selections should be repeated every year. The evidence we have now shows that the resistance to wilt can be maintained in this way without difficulty. A resistant variety will run out if neglected, just as any other kind would do.

Future distributions of seeds.—The Department of Agriculture is now growing a number of wilt-resistant selections of Sea Island cotton, which it is intended to distribute among the planters as soon as a sufficient quantity is obtained. Some of these may be better than the "No. 224," but in the meantime it is hoped that the planters will continue the work of originating resistant strains for themselves, as so many are now doing.

W. A. Orton,
Assistant Pathologist.

Approved:
A. F. Woods,
Pathologist and Physiologist.

[Circular sent to recipients of seed of the Iron cowpea.]

IRON COWPEA.

(A variety resistant to wilt and root-knot.)

HISTORY.

The Iron cowpea is a variety especially adapted for soil renovation and forage purposes on land where other varieties fail to succeed because of the attacks of wilt, root-knot, and other soil parasites. The seed sent out in two-quart packages accompanying this circular is grown expressly for the Department of Agriculture and is distributed in the Southern States primarily to test its resistance to the diseases mentioned above, which cause the condition of land commonly known as "pea-sickness." In localities where no disease occurs it should be tested for hardiness, resistance to drought and weevils, and general value.

The origin of the Iron cowpea is uncertain. It was found in cultivation in Barnwell and Aiken counties, S. C., and its remarkable resistance to disease was demonstrated by experiments made by the Department of Agriculture in 1900–2 on the farm of Mr. T. S. Williams, Monetta, S. C., where the seed now distributed was grown. It was tested on land infested with both wilt and root-knot in comparison with over forty other varieties, all of which were wholly or partially destroyed by disease, while the Iron variety remained healthy. A photograph of this field is shown in Plate III, fig. 1. The Speckled cowpea on the right was treated in every respect like the Iron, but was unable to withstand the disease. In all our trials in South Carolina the Iron cowpea has remained free from nematode attacks, but at the Florida Experiment Station it was somewhat affected. It should be understood that under varying conditions different results may be expected, and this variety may not everywhere prove as resistant as in South Carolina. One object of this distribution of the Iron cowpea is to determine its resistance to disease under varying climatic and soil conditions and its suitability for different sections.

CHARACTERS OF THE IRON COWPEA.

The Iron cowpea is of the Clay type. The seeds are small and hard; color buff, of varying shades. The plant is vigorous, erect, or half-trailing; the leaves dark green, with a distinctive bluish luster; time of maturing, medium to late. It blooms and bears continuously through the season, but the pods do not shell out in the field as freely as other sorts. An especially noteworthy feature is that it holds its leaves late in the season, remaining green after other late kinds are dead. It resists the attacks of the wilt fungus and nematode worm, withstands drought well, and the hard seeds are very free from weevil attacks. The seeds will live through the winter in the ground and come up in the spring more freely than any other variety tested. It is reported to be of fair quality as a table pea.

The Iron cowpea will be most valuable for soil improvement and forage where other kinds fail. On healthy soils it is doubtful whether it will replace existing standard varieties, as it is no more productive than many others. Its long bearing season is a fault, making harvesting more difficult.

DIRECTIONS FOR PLANTING.

In order to test the disease-resistant qualities of this cowpea it should be planted on land where the ordinary varieties do not grow well, if any such is available. For the purpose of comparison, a few rows of another variety should be planted beside it. The methods of planting and cultivation should be the same as for the common varieties. To secure a good crop of seed, plant from May 20 to July 10, according to the latitude, in drills 3 to 4 feet apart, at the rate of 2 pecks per acre.

DISEASES OF THE COWPEA.

The Iron cowpea is most noteworthy for its resistance to the cowpea wilt disease and root-knot. A full description of these diseases, with accounts of experiments with remedies, etc., is published in Bulletin No. 17, Bureau of Plant Industry, United States Department of Agriculture, and will be sent free on request. A brief account is given here to enable the farmer to recognize these troubles.

THE COWPEA WILT.

The wilt of the cowpea is common only on light or sandy soils, and occurs principally on land where cowpeas have been grown for several years. It appears about August in spots of varying size, which spread gradually over the field. The plants in these areas turn yellow, lose their leaves, and die. The stems have a reddish-brown tinge, and, when broken, the inside will also be found discolored. Later, these stems become covered with the light-pink spores of the fungus which causes the disease. This fungus enters the roots from the soil and, growing upward, fills the water-carrying vessels of the stem with its threads, thus shutting off the water supply and causing the death of the plant.

Remedies.—The cultivation of the Iron pea is the best means of relief, as it will grow where all other kinds fail. Rotation of crops for two years will give temporary relief, or since the disease does not attack any other crop than the cowpea, velvet beans or other legumes may be substituted.

ROOT-KNOT.

Root-knot, like the wilt, is most injurious on sandy soil, and the two diseases are often found occurring together. It is caused by a minute nematode, or eelworm, which enters the roots and produces large, irregular swellings or galls. These very injurious enlargements should not be confused with the bacterial tubercles found on all healthy cowpea roots. The latter are small and regular in form and greatly benefit the plant by enabling it to draw nitrogen from the air. The accompanying figures illustrate this distinction. A few bacterial tubercles appear on the healthy roots in Pl. III, fig. 2, while the roots in fig. 3 are deformed by root-knot.

Root-knot is also produced on several other plants by the same nematode that attacks cowpeas. Cotton, okra, peaches, and most garden vegetables are greatly injured by it. This is the most serious feature of the disease, since the cultivation of the ordinary varieties of cowpea on nematode-infected land so greatly increases the number of the parasites in the soil that succeeding cotton or other crops are much injured.

Remedies.—It is hoped that work now in progress in the Department of Agriculture will result in the breeding of varieties of cotton, peaches, etc., which will be resistant to root-knot. At present no remedy is known that will entirely free land in our Southern States from this disease. The sterilization of the soil by heat or toxic chemicals, clean fallowing, etc., have been recommended, but the best that can be done in ordinary farm practice is to adopt a rotation designed to starve out the parasites by growing a succession of immune crops, such as the Iron cowpea, beggarweed, corn, oats, or other grains, grasses, etc. A rotation like the following is suggested for cotton planters: First year, corn, with Iron cowpeas between the rows; second year, either beggarweed, velvet beans, or oats, followed by Iron cowpeas; third year, cotton. If necessary cotton might also be planted the fourth year, after which the rotation should be repeated.

W. A. ORTON,
Assistant Pathologist.

Approved:
A. F. WOODS.
Pathologist and Physiologist.

REPORT RESULTS.

It is desired to know the results of all trials of the Iron cowpea, and every farmer who receives seed is requested to return the accompanying card with his name and address, signifying his willingness to report at the end of the season. Blanks will then be sent out to be filled and returned. A report will be asked for on the character of soil, whether or not infested with wilt or nematodes, manner of planting, character of season, success as a forage crop, yield as compared with other varieties, resistance to disease, etc.

A. J. PIETERS,
Botanist in Charge.

Approved:
B. T. GALLOWAY,
Chief of Bureau.

[Circular sent to recipients of seed of Kleinwanzleben sugar beet.]

KLEINWANZLEBEN SUGAR BEET.

Grown by E. H. Morrison, at Fairfield, Wash., from mother beets of exceptionally high sugar content and purity. The Department of Agriculture wishes to have written reports as to the quality of this seed, as sugar beet seed raising in the United States is a new industry. All requests for either beet or vegetable seed for another year from those sending such reports will be given special consideration.

Culture.—While sugar beets can be succcsssully grown on a variety of soils, it is usually considered that they thrive best on a rich, sandy loam, having uniform surface and subsoil. The soil should be deep, with moderately porous subsoil, and either naturally or artificially drained. A good crop can not be grown on shallow soil having a hard, impenetrable or water-soaked subsoil. A soil that will grow a good crop of corn or potatoes is well adapted for beet culture. Well-rotted manure, phosphates, and potash may be freely used, but Chile saltpeter, if used at all, should be used sparingly. The proper preparation of the soil is a prerequisite to successful growing. The ground should be fall plowed to a depth of 9 or 10 inches, and subsoiled 5 or 6 inches more. The surface should be thoroughly pulverized by disking and harrowing as soon as the frost is out of the ground. After the weeds have a good start, the ground should be again harrowed to destroy them, and finally harrowed the day before seeding. The seed should be evenly planted in rows 18 inches apart, as early in the spring as the season will permit. If a drill is used, 15 to 20 pounds of seed are required to sow one acre, while 10 to 15 pounds are sufficient if sown by hand. Cover the seed to a depth of one-half to 1½ inches, according to the condition of the soil and the season. To keep weeds from getting a foothold and the surface loose, cultivation should begin as soon as the seeds have sprouted sufficiently to show the rows and continued as long as it is possible to do so without breaking the lower leaves. Thinning should be done as soon as the plants have four well-formed leaves. This can be most easily done by bunching with a 6-inch hoe, leaving a group of plants every 6 to 10 inches. Thin to one plant to each group, using care always to leave the strongest and healthiest plant, even though the plants are at somewhat irregular distances. Give a thorough hoeing at the time of thinning.

It is difficult to give general directions for raising sugar beets, as local conditions of soil and climate often make general rules impracticable, when the individual grower must meet conditions peculiar to his particular locality.—J. E. W. TRACY.

Attention is again called to the desirability of a report on this seed. The beets raised from this seed should be hauled to the factory in a separate load from beets grown from any other seed, and a separate test for sugar content and purity should be made. If persons receiving this seed will send to the undersigned a postal card stating that they are willing to fill out a report, a blank form will be forwarded to them.

A. J. PIETERS,
Seed and Plant Introduction and Distribution.

[Circular sent to recipients of tobacco seed.]

PLAN OF DISTRIBUTING TOBACCO SEED, AND CULTURAL DIRECTIONS FOR THE DIFFERENT TYPES OF TOBACCO DISTRIBUTED.

For several years the Bureau of Plant Industry and the Bureau of Soils have been cooperating in work looking toward the improvement of tobacco in this country. Under the direction of the Chief of the Bureau of Soils the tobacco seed for the forthcoming Congressional seed distribution was secured from carefully selected and matured plants, in accordance with directions issued by the Department to individual growers. The seed was obtained from the best localities for each variety, and a plan of distribution worked out whereby the varieties suitable for certain districts will be sent there.

The following directions for the distribution and culture of the different types of tobacco have been prepared in the office of the Chief of the Bureau of Soils:

PLAN OF DISTRIBUTING TOBACCO SEED.

The Congressional districts in which tobacco seed will be distributed and the varieties which it is believed are best adapted to these districts are as follows:

ALABAMA:
  First district: Florida Sumatra, Florida Cuban, Connecticut Havana.
ARKANSAS:
  Second, Fifth, and Sixth districts: Kentucky White Burley, Virginia Oronoco, Virginia White Stem.
CALIFORNIA:
  Sixth and Seventh districts: Florida Sumatra, Florida Cuban, Connecticut Havana.
CONNECTICUT:
  First, Second, and Fourth districts: Florida Sumatra.
FLORIDA:
  First and Second districts: Florida Sumatra, Florida Cuban.
GEORGIA:
  Second district: Florida Sumatra, Florida Cuban.
ILLINOIS:
  Ninth district: Ohio Zimmer Spanish, Connecticut Havana.
  Nineteenth, Twentieth, and Twenty-second districts: Tennessee Improved Yellow Mammoth, Tennessee Oronoco.
INDIANA:
  First, Third, and Fourth districts: Tennessee Oronoco, Kentucky White Burley, Tennessee Improved Yellow Mammoth.
KENTUCKY:
  First, Second, and Third districts: Tennessee Improved Yellow Mammoth, Tennessee Oronoco.
  Fourth and Fifth districts: Tennessee Improved Yellow Mammoth, Tennessee Oronoco, Kentucky White Burley.
  Sixth, Seventh, and Ninth districts: Kentucky White Burley.
  Eighth, Tenth, and Eleventh districts: Tennessee Oronoco, Kentucky White Burley.

LOUISIANA:

Second and Third districts: Kentucky White Burley, Tennessee Improved Yellow Mammoth, Florida Cuban.

MARYLAND:

Second and Sixth districts: Ohio Zimmer Spanish, Connecticut Havana.

Fifth district: Maryland Smoking.

MASSACHUSETTS:

First and Second districts: Florida Sumatra.

MISSOURI:

First, Second, Seventh, Eighth, Ninth, Thirteenth, Fourteenth, and Fifteenth districts: Tennessee Improved Yellow Mammoth, Tennessee Oronoco, Kentucky White Burley.

NEW YORK:

Twenty-fourth, Twenty-seventh, Twenty-eighth, and Twenty-ninth districts: Florida Sumatra, Florida Cuban, Connecticut Havana, Ohio Zimmer Spanish.

NORTH CAROLINA:

Second, Fourth, Fifth, Seventh, Eighth, and Ninth districts: Virginia Oronoco, Virginia Sun Cured, Virginia Blue Pryor, North Carolina Bright Yellow.

OHIO:

First, Third, Fourth, and Seventh districts: Ohio Zimmer Spanish, Connecticut Havana, Florida Cuban.

Sixth district: Ohio Zimmer Spanish, Florida Cuban, Kentucky White Burley.

Tenth district: Ohio Zimmer Spanish, Connecticut Havana, Kentucky White Burley.

Fifteenth, Sixteenth, and Seventeenth districts: Maryland Smoking, Ohio Zimmer Spanish.

Twentieth district: Maryland Smoking, Ohio Zimmer Spanish, Florida Cuban.

PENNSYLVANIA:

Sixth, Seventh, Ninth, Tenth, Fourteenth, Fifteenth, Sixteenth, Seventeenth, and Nineteenth districts: Ohio Zimmer Spanish, Connecticut Havana, Florida Cuban.

SOUTH CAROLINA:

First, Second, Third, Fourth, Fifth, Sixth, and Seventh districts: Virginia Oronoco, Virginia White Stem, Virginia Blue Pryor, North Carolina Bright Yellow.

TENNESSEE:

First, Second, and Third districts: Tennessee Improved Yellow Mammoth, Tennessee Oronoco, North Carolina Bright Yellow.

Fourth district: Tennessee Improved Yellow Mammoth, Kentucky White Burley.

Sixth district: Tennessee Improved Yellow Mammoth, Tennessee Oronoco, Kentucky White Burley.

Fifth, Seventh, Eighth, Ninth, and Tenth districts: Tennessee Improved Yellow Mammoth, Tennessee Oronoco.

TEXAS:

First, Second, Ninth, and Tenth districts: Florida Sumatra, Florida Cuban, Ohio Zimmer Spanish.

VIRGINIA:

First, Third, Fifth, Seventh, Eighth, and Ninth districts: Virginia Oronoco, Virginia Sun Cured, Virginia Blue Pryor, North Carolina Bright Yellow.

Fourth, Sixth, and Tenth districts: Virginia White Stem, Virginia Sun Cured, Virginia Blue Pryor, North Carolina Bright Yellow.

West Virginia:

- Third district: Virginia Oronoco, Virginia Sun Cured, North Carolina Bright Yellow, Kentucky White Burley.
- Fourth district: Virginia White Stem, Virginia Sun Cured, North Carolina Bright Yellow, Kentucky White Burley.

Wisconsin:

- First, Second, Third, Seventh, and Tenth districts: Florida Sumatra, Florida Cuban, Ohio Zimmer Spanish, Connecticut Havana.

CULTURAL DIRECTIONS FOR THE DIFFERENT TYPES OF TOBACCO.

Florida Sumatra Tobacco (Northern Districts).

A very rich spot should be selected for the seed bed of Sumatra tobacco grown in the North. In the early fall this plot should be plowed and divided into beds 6 feet wide and any desirable length, surrounded by a wall made of boards, 2 inches thick and 12 inches wide, set 2 or 3 inches in the ground. These beds should be highly fertilized with cotton-seed meal and stable manure, well spaded in to a depth of 6 or 8 inches, and the whole covered with leaves, manure, or trash to keep out the frost during the winter. About April 1 this top dressing should be taken off and the bed again spaded and the soil well pulverized, after which another application of cotton-seed meal or cotton-hull ash should be given. This should be raked in and the surface made smooth and loose, making the bed ready to receive the seed. About five days before the time of sowing the seed should be put to sprout in apple-tree punk, made soft with warm water. This should be put in a fruit jar and kept in a warm room. It will be observed that the seed will be slower in sprouting than domestic tobacco seed, and it will not sprout uniformly; that is, all the seed will not sprout at the same time. It is best to wait until nearly all the seed is sprouted before sowing. Mix the seed with bran or cotton-seed meal and sow at the rate of 2 tablespoonfuls of the seed to 100 square yards, after which a heavy roller should be drawn over the bed, thus packing the seed well into the soil, making the surface smooth and preventing the rapid drying out of the soil which would otherwise take place. If the ground is dry, it should be watered immediately after sowing the seed, and this should be continued from time to time as the soil may require. In the absence of rain after the plants are up watering should still be practiced.

There are many enemies of the seed bed in the way of insects, so a careful watch is necessary. As soon as there is any appearance of flea-beetles or horn worms, the bed should be sprayed with paris green mixed with water at the rate of 1 tablespoonful to 2 gallons of water. In order to keep down the insects, the bed should be sprayed at least three times a week. It is safer to protect these early beds with canvas stretched on frames made over and around the beds.

When the plants are drawn for transplanting, great care should be taken to get as much root as possible. Each person doing this work should be provided with a bucket of water, and as soon as the plants are drawn the roots should be washed to remove all soil that may have stuck to them. The plants are then placed in a basket, roots down, and are immediately set out. The washing of the roots is not generally practiced, but it has been found that plants live and grow better when the roots are clean. After each drawing of the plants from the bed, the soil should be watered, in order to close up the places from which the plants have been taken.

The soil selected for this tobacco should be a light gray sandy loam or sand with a sand or clay subsoil, provided the clay is not closer to the surface than 12 or 15 inches. In order to produce a light, thin wrapper, the sandy soil must be very rich and a large quantity of fertilizer is necessary. The land should be broken up in November or December, allowing the plow to cut from 4 to 6 inches deep, according to the nature of the soil and the quantity of fertilizer used. If a large quantity of fertilizer is used, such as cotton-seed meal and stable or barn manure, it should be thrown broadcast over the field and plowed in. This should be done about six weeks before the time of setting out the plants. Often a second application of fertilizer will be needed in order to give a continuous, rapid growth.

The distance between the rows should be 4 feet and between the plants 12 inches. As it is always desirable to get a uniform growth, great care should be exercised to have each plant live. If the ground is moist and showers frequent, watering the plants is unnecessary; but if the ground is dry, they should be watered immediately after setting and, if possible, each day thereafter as long as the plants may require it. After setting the plants they should not be disturbed for at least six days. If the soil becomes packed and hard, a furrow should be run on each side of the row, using a small straight plow and letting it well down. This should be followed immediately by two sweep furrows, which will put the plants on a smooth ridge. The hoe is then used, carefully stirring the soil about the plants. Thereafter cultivation should be frequent and shallow.

As the principal value of Sumatra is its wrapping leaves, great care should be exercised to preserve the soundness of the leaf. In topping the Sumatra tobacco only the bud should be taken out, and all the leaves allowed to grow. If the land is exceedingly rich it is found best not to top at all, but to allow the plant to go to bloom. It has been found by experience that Sumatra tobacco should be harvested at an early stage of ripeness, as the leaf will cure riper and be more elastic—that is, it will have more life. It is usual to take 4 or 6 leaves at each priming, thus going over the field four or five times before the whole crop is harvested.

As soon as the first leaves at the bottom of the stalk begin to ripen, harvesting is begun by plucking off or priming the first four leaves at the bottom and transporting them to the curing shed in baskets. There they are strung on strings attached to laths, from 30 to 40 leaves being allowed to a lath. The leaves are placed back to back and face to face, so as to prevent cupping or folding over each other. The laths are then hung in tiers in the barn, where they remain until the leaves are cured.

When the tobacco is primed from the stalk, it should not take more than two weeks to cure; when it is hung on the stalks, three to four weeks are necessary. The manipulation of the barn or curing shed is governed entirely by the condition of the weather and the nature of the tobacco; so no fixed rules can be given. However, in a general way, it can be said that if a barn is filled with green tobacco and the weather is hot and dry, the ventilators should be tightly closed for about three days, by which time the tobacco should be quite yellow. The barn should then be opened at night and kept closed during the day. This is done to prevent rapid curing, which destroys the life of the leaf and gives uneven colors. If there are frequent showers and but little sunshine, the barn should be kept closed and fires started in small charcoal heaters distributed throughout the barn. These fires should be continued as long as it is necessary to keep the tobacco in proper condition. Where charcoal heaters are not available, wood which has as little odor and as little smoke as possible should be used. It is very important to dry out the barn without giving the tobacco any foreign odors. To obtain the best results the tobacco should become fairly moist and fairly dried out once in every twenty-four hours.

When the midribs are thoroughly cured the leaves are ready to be taken to the packing house. To get the tobacco in condition to handle, all the ventilators should be left open for one night, opening them about 6 o'clock in the evening. The next morning the tobacco should be in what is called "good case;" that is, it will have taken up sufficient moisture to become soft and pliable. The barn is then tightly closed, in order to retain the moisture, and the leaves are taken from the laths. The bottom, middle, and top leaves should be kept separate in the barn. After the tobacco has been taken down and packed it should be taken at once to the warehouse for fermentation and baling.

Florida Sumatra Tobacco (Southern Districts).

The land for the seed bed should be preferably fresh, rich hammock, having a light gray soil, moist but not wet. Dry, thirsty land should be avoided. In selecting the seed bed it is best to secure land sloping from north to south, protected on the north by forests and open on the south to let in the midday sun. The time for sowing the seed is from March 1 to April 15. Plants should be ready for transplanting about sixty days after sowing.

One week before sowing the seed the bed should be thoroughly cleaned and all straw and leaves carefully raked off, after which the ground should be burned. This is done to destroy all grass and weed seeds or roots which might otherwise come up and choke the tobacco plants. The burning is done in the following manner:

After raking the surface well, skids are laid 4 feet apart, running the full length of the plat to be sown. A pile of wood is then laid across the skids, running the width of the bed. The fire is started, and as fast as the ground is thoroughly burned and covered with ashes the fire and wood are drawn along the skids, wood being continuously added. After the entire bed is burned the ground is again raked to remove the coals, letting the ashes remain. The soil is then spaded to a depth of 4 inches, all the roots and tufts being carefully taken out. If the soil needs fertilizing after the spading is completed (the seed bed should be very rich in order to give thrifty, healthy plants), such quantity of fertilizer as may be necessary is thrown broadcast over the surface. Any complete guano may be used. The bed is again raked with an iron-toothed rake to mix the fertilizer well with the soil and to have the surface smooth and loose.

The bed should be divided into "lands" about 4 feet wide, leaving narrow walks between. Each land should be measured to ascertain how many square feet it contains, and enough seed should be mixed with ashes to sow one land at a time, at the rate of 2 tablespoonfuls of the seeds to 100 square yards. This is the usual allowance for 1 acre to be planted. After the sowing is completed the bed should be rolled with a heavy roller. If the ground is dry it should be watered immediately after the sowing of the seed, and this should be continued from time to time as the soil may require. In the absence of rain, after the plants are up, watering should still be practiced.

The manner of transplanting, the kind of soil to be selected, the methods of field culture, and the manipulation of harvesting and curing are the same in both northern and southern districts.

Florida Cuban Tobacco.

The seed bed for this variety of tobacco should be the same as that for the Sumatra in the South, and should be cleared, burned, and prepared in the same manner. The time for sowing the seed is from January 15 to March 1, and sometimes as late as April. January and February sowings should give plants large enough for transplanting within sixty or seventy days; those of March and April within forty to sixty days. Transplanting is done in the same way as with the Sumatra, except that the plants are set 14 inches apart. The same rules as to watering and early cultivation apply.

When the plants begin to button, cultivation should stop. Early or low topping is not desirable, as it throws too much growth into the leaves, making them large and coarse. There should be from 14 to 16 leaves to the stalk after the plant is topped. At this point suckers will start at each leaf, but these must be broken off at least twice a week. The battle with the worms, which was begun in the seed bed, does not end until the tobacco is harvested. A careful watch should be maintained to keep all insects off the tobacco.

This variety should be harvested and hung in the curing shed in the same manner as the Sumatra. If it gives promise of being "wrapper"—that is, if it is light green, very sound in leaf, and of desirable size—it should be primed at an early stage of ripeness. If, however, appearances prove that it will be "filler" tobacco, it should be allowed to get thoroughly ripe.

If the soil is rich and the season propitious, a second profitable crop can be produced from the suckers in Southern localities. As soon as the original crop is topped suckers will sprout from each leaf. These, of course, should be broken off as soon as they appear, otherwise they will check the growth of the leaf. When all the leaves have been primed from the original stock, except the four or six leaves at the top, two suckers should be allowed to grow from the bottom of the stalk. These two suckers will be well started by the time the top leaves of the original stalk are ripe. The stalk should then be cut just above where the suckers sprout, and cultivation should begin at once, the soil being brought up around the old stubble. The suckers should not be allowed to have more than six leaves each. The growth of these will be rapid and they will mature quickly. When ripe the leaves should not be primed, but the stalk should be cut. It is often the case, where the seasons are favorable, that the suckers will make a very fine quality for filler purposes.

The same method of curing is used for both Cuban and Sumatra tobacco.

CONNECTICUT HAVANA TOBACCO.

The seed bed for this type should be prepared by plowing it in the fall and sowing on a good supply of cotton-seed meal or some other good fertilizer. In the spring, as soon as the frost is out of the ground, the bed should be again plowed or harrowed with a cutaway harrow and a small quantity of phosphate thrown broadcast upon it. The bed should again be harrowed and well raked. The seed should be sown about the middle of April. It is first sprouted by being put in apple-tree punk or moist sand and kept in a warm room. Plants should be ready for setting in the field within six or seven weeks from sowing. The rows should be 3 feet 4 inches apart, and the distance between the plants from 16 to 18 inches. The tobacco is topped so as to allow from 16 to 18 leaves to the stalk. The average yield per acre is from 1,800 to 2,000 pounds.

The crop is harvested by cutting the stalks and letting them remain in the field until they wilt. Then they are hauled to the barn, where they are speared on laths, from 8 to 12 stalks being allowed to a lath. These are hung up in the barn 8 inches apart.

This tobacco is cured as follows: While the leaves are green the barn should be closed at night and during damp weather and opened during the day; but when the tobacco is half cured, the ventilation should be reversed and the barn closed during the day and opened at night and in damp weather. The tobacco should be fairly dried out and fairly moistened once every twenty-four hours. The curing is completed when the midribs of the leaves are thoroughly dried.

The soil best adapted to the Connecticut Havana variety is a light sandy loam.

OHIO ZIMMER SPANISH TOBACCO.

The seed bed for this type, which is prepared in essentially the same way as that for the Connecticut Havana, should be sown from March 1 to April 15, and the plants ought to be ready for transplanting within eight or ten weeks. The rows in the field should be 3 feet apart and the plants 22 inches from each other in the drill. The tobacco should be topped when the seed bud appears, leaving about 16 leaves to the plant. The average yield is 1,000 pounds per acre.

The Zimmer Spanish tobacco is harvested and cured in the manner described for the Connecticut Havana leaf.

The soil best adapted to the Zimmer Spanish variety is sugar-tree red uplands or "Miami clay loam" of the Soil Survey.

NORTH CAROLINA BRIGHT YELLOW TOBACCO.

The seed bed for this tobacco should, if possible, be selected on a hillside sloping from west to east or from north to south, so as to get all the morning sun and be sheltered from the cold west and north winds. The soil of the seed bed should be as rich alluvial virgin soil as can be had. The bed should be well burned and all the grubs taken out. A little 2-inch bull-tongue plow should be used to break up the soil in two ways so as to tear out all the roots, which should be raked out and the bed made smooth. To 100 square yards put on 100 pounds of high-grade fertilizer and 2 barrels of well-rotted stable manure about 1 inch deep. Plow this in with the same bull-tongue plow and rake the bed carefully until the surface is level. After the sowing is completed a heavy roller should be drawn over the bed.

The seed should be sown from the first to the middle of January and not later than the first of February. This will give plants ready for transplanting by April 5. Harvesting should begin from sixty to seventy days after transplanting. The rows should be 3½ feet and the plants 2½ feet apart. The average yield is 1,000 pounds per acre.

Harvesting may be done by priming the leaves or by cutting the entire stalk. In priming the tobacco the leaves are stripped from the stalk in the field as they ripen, and are strung on strings attached to laths, about 30 leaves being allowed to each lath. These are then hung in the barn to cure. If this method is practiced, from 14 to 16 leaves may be matured on each plant. If it is desired to cure the tobacco on the stalk, the first four bottom leaves should be stripped off and the tobacco topped, so as to leave from 10 to 12 leaves on the stalk. In cutting the tobacco the stalk should be split from the top down to within a few inches from the last set of leaves, and then the stalk should be cut just below these leaves. The plants are hung on the lath by opening the split, 6 to 8 plants being allowed to each lath. These are carried to the barn, where they are hung in tiers.

This tobacco is cured as follows: The barn should be heated to 100° and allowed to remain at that temperature until the tobacco colors well. The temperature should then be gradually raised to 110° and retained until the desired colors are obtained. At 120° the tips of the leaves on the first tier should show signs of drying, and at 125° all the leaves on the first and second tiers should be dry. At this point the barn should be gradually heated to 145°, a pause of several hours being made at 140°. By this time all the leaves in the barn should be dry, but in order to kill the stem the temperature should be raised 5°. Then a rapid rise should be made until 175° is reached, at which temperature the tobacco should be thoroughly cured.

The soil best adapted to this type of tobacco is a light-gray sandy loam.

Maryland Smoking Tobacco.

Prepare the seed bed for this variety as for Cuban tobacco, sowing the seed from February 1 to March 20. The other operations in the production of the two types are the same up to transplanting. The Maryland smoking tobacco is transplanted from May 15 to June 1, in rows 3 feet apart, the plants being given a distance of 20 to 24 inches from each other in the drill. The plants should be topped so as to leave about 16 leaves to the stalk. The average yield is 1,000 pounds to the acre.

In harvesting this tobacco, the plants are cut and four rows are thrown together. They are then speared on sticks, from 6 to 8 plants being allowed to the stick. Care should be taken that the plants are not crowded too closely on the sticks or in the barn. The sticks are hung about 8 inches apart in the barn, and after the tobacco is half cured they can be put closer together if necessary, say about 4 inches apart. It generally takes about two months to cure this tobacco sufficiently to strip.

Tennessee Types (Yellow Pryor, Oronoco, Improved Yellow Mammoth).

The soil best suited for the seed beds of these types is rich, friable, black virgin loam or sandy soil with a southern exposure. The time for sowing the seed is from March 1 to April 15. The preparation and management of the seed bed are the same as for Cuban tobacco. The plants should be ready for transplanting about May 10. The rows in the field should be placed 3½ feet apart each way. Ten days are necessary for the plants to establish themselves in the soil, and at the end of that time cultivation with the plow should begin; afterwards the hoe should be used. The field should be worked first one way and then the other.

About six or eight weeks after transplanting the plants ought to be ready for topping. This is done by pinching off the bud, leaving 8 or 10 leaves to the stalk, not including the leaves at a distance of 6 inches from the ground. All suckers should be kept off the plant.

The tobacco should be allowed to get thoroughly ripe before harvesting, which is done in the following manner: Split the stalk down from the top to within a few inches of the last set of leaves. Cut two rows, laying the plants right and left, and when wilted hang the plants on laths, from 8 to 12 stalks to a lath. These should be laid in small piles at a sufficient distance apart to allow between them the passage of a wagon, on which the laths are loaded and carried to the curing shed. Care should be taken not to cut the plants after a rain or in the hot sun.

This tobacco is cured as follows: After it has been hanging in the barn four or five days, slow fires should be kindled under it, and at the expiration of twenty-four hours the heat should be gradually increased until 150° is reached. The leafy part and one-half the stem should be cured in three days and nights. After this the tobacco should be allowed to come in "order" (soft and pliable) and be dried out by fires. This alternation of getting the tobacco moist and drying it out should be kept up for three or four weeks. This tobacco is cured by open wood fires, made by placing two logs side by side and building a fire between them. Open-fire heat is preferred for all tobacco to be sent abroad.

The soil best adapted to these types is a strong, rich loam with a deep reddish subsoil.

Kentucky White Burley Tobacco.

The seed bed for this variety of tobacco is selected and prepared as in the case of the Cuban type, the only variation being in the time of seeding, which for the Burley is limited to February.

As soon as the plants are well rooted cultivation should begin, and this should be continued during the growing season, so as not to allow the soil to become crusty and hard. The plants should not be permitted to bloom, but should be topped as soon as the button appears, leaving from 14 to 16 leaves to the stalk.

The tobacco should be allowed to become thoroughly ripe before harvesting. It is harvested in much the same way as the Yellow Pryor and other Tennessee types, but no fire is used in its curing, which is accomplished by simply hanging in the barn.

VIRGINIA TYPES (WHITE STEM OR ONE SUCKER, ORONOCO, SUN-CURED, BLUE PRYOR).

The situation and kind of soil best suited for the seed bed and the methods of its preparation and management are the same for all these types as for the Cuban tobacco, but there are some differences in the time of sowing the seed and in the manner of cultivating, harvesting, and curing the different varieties.

White stem or one-sucker tobacco.—Seed should be planted from January to March. Plants should be set in the field in rows 4 feet apart and given a distance of 3 feet in the drill. The plants should be topped, so as to allow from 8 to 12 leaves to the stalk. The average yield is 1,500 pounds per acre.

About fourteen weeks elapse between the time of transplanting and of harvesting, as this tobacco should be thoroughly ripe when cut. The crop is cut and harvested in the following manner: The stalk is split from the top to the last set of leaves and severed about 2 inches below the split, or just below the last set of leaves. Hang the stalks on laths by opening the split, seven or eight plants being sufficient for one lath.

The curing is done as follows: Put the tobacco in the barn as quickly as possible—before it begins to turn yellow. After the barn is filled build a fire of dry oak or other hard wood and make it hot enough to scald the leaves. About five hours of firing at a temperature of from 150° to 155° will usually scald the leaves. Then diminish the heat and keep a slow fire in the barn until the stalks are cured. Forty-eight hours are required to perfect this cure.

The soil adapted to this type of tobacco is a sandy loam with a red clay subsoil. Without such subsoil the tobacco will have a dull, slaty color, while with it the tobacco will be rich, glossy, and much tougher.

Oronoco tobacco.—The time for sowing the seed is from February 1 to April 15. Plants should be ready for transplanting sixty days after sowing if the season is favorable.

In the field the distance between the rows should be $3\frac{1}{2}$ feet and between the plants in the drill 3 feet. The plants should be topped so as to leave from 8 to 10 leaves on the stalk. Fifteen hundred pounds per acre is considered a good crop.

The tobacco is cut in the same way as the White Stem variety. When the plants are wilted, one man walks between the rows, holding the lath on which the plants are to be hung. The hanging is done by two other men, who walk to the right and left of the one carrying the lath. When the laths are full, they are carefully laid on the ground, two or three together. They are then loaded on a wagon and carried to the curing shed, where they are hung in tiers. From 6 to 8 stalks are allowed to a lath.

This type of tobacco is usually cured with a small fire in the barn. Slow fires should be started and kept burning until the leaf is well yellowed; then the temperature should be increased until the leaf is cured and the stalk is brown. After this it is only necessary to have enough fire during the early morning to dry out the leaf until the tobacco is thoroughly cured. From twenty to thirty days are required to complete this curing.

A soil with a stiff clay subsoil is adapted to the growing of this tobacco.

Sun-cured tobacco.—The time of sowing the seed is from February 1 to April 15. Plants should be ready for transplanting in about ninety days after sowing. The rows should be 3 feet 3 inches apart and the plants in the drill 2 feet. The plants are topped so as to leave 10 to 12 leaves to the stalk. The average yield is 1,000 pounds per acre. The crop is cut and harvested in the same manner as the Oronoco type.

Curing is effected as follows: When the tobacco is taken to the curing shed, it is crowded together and allowed to remain until it is quite yellow. Then the barn should be opened or the tobacco should be hung on racks in the sun until cured. Sun and dew are preferred for curing sweet-flavored tobacco. From five to eight weeks are required to effect this cure.

The soil best adapted to this type of tobacco is a medium sandy soil that is high enough to give good natural drainage.

Blue Pryor tobacco.—Seed should be sown from January 1 to March 15. Plants should be set in rows 3½ feet apart and given a distance of 3 feet in the drill. The plants are topped so as to leave 8 or 10 leaves on the stalk. The average yield is from 1,200 to 1,500 pounds per acre. The method of harvesting is the same as for the previous types.

The tobacco is cured in the following manner: It is hung in the barn until it yellows uniformly; then a slow fire is started and continued until the leaf is cured. From three to five weeks are required for the curing of this type.

The soil best adapted to this tobacco is a gray loam with a red clay subsoil.

COMMERCIAL USES OF THE DIFFERENT VARIETIES OF TOBACCO.

Florida Sumatra tobacco is used almost exclusively as a wrapper for domestic cigars. In the southern districts the thick or broken leaves may be cured for filler purposes.

Florida Cuban is essentially a filler tobacco for domestic cigars, although much desirable wrapper is produced from this type in the southern districts.

Connecticut Havana is grown entirely for wrapper and binder purposes for domestic cigars.

Ohio Zimmer Spanish is used exclusively for filler for domestic cigars.

North Carolina Bright Yellow is used for pipe smoking, chewing, and cigarettes. The most valuable leaves are those used for wrappers for plug tobacco and for all-tobacco cigarettes. This type was formerly grown almost wholly for the domestic market, but now a considerable export trade is maintained with England, Japan, and other countries.

Maryland Smoking tobacco was formerly used to a large extent for domestic pipe smoking, but the principal market is in two or three of the "Regie" countries, France taking the bulk of the crop.

The Tennessee types are principally exported.

The Virginia types are used to a very large extent in the domestic markets for smoking and chewing tobaccos and snuff. Considerable quantities, however, are exported, especially the heavier and cheaper grades.

Kentucky White Burley is used for pipe smoking, chewing, and cigarettes. The bulk of the crop is consumed in our domestic markets, but considerable quantities are exported.

RECENT PUBLICATIONS OF THE DEPARTMENT ON TOBACCO.

The following publications are available for general distribution:

Farmers' Bulletin No. 60.—Methods of Curing Tobacco.

Farmers' Bulletin No. 82.—Culture of Tobacco.

Farmers' Bulletin No. 83.—Tobacco Soils.

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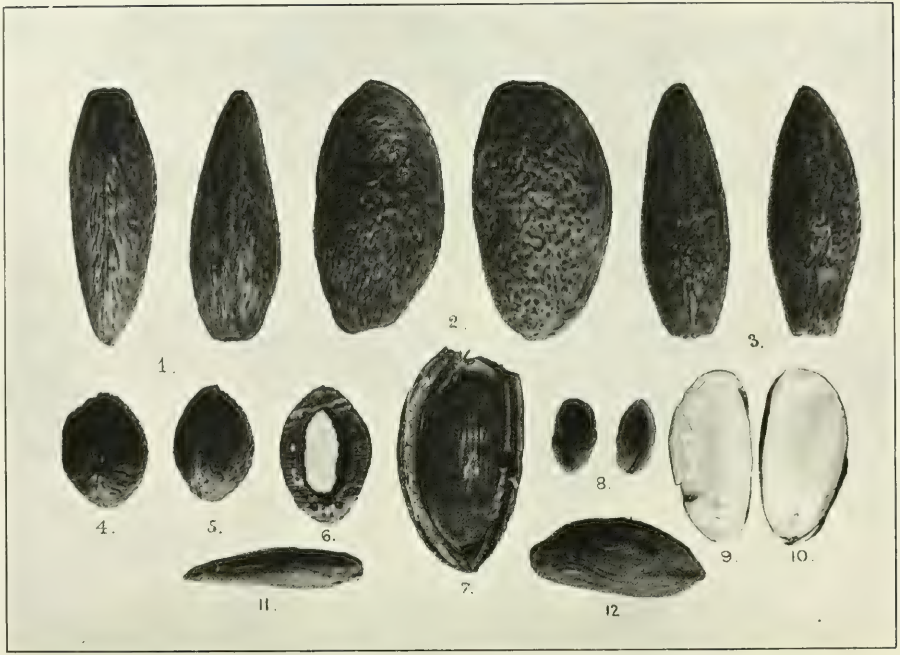

JORDAN ALMONDS (NATURAL SIZE).

1, Ventral view; 2, lateral view; 3, dorsal view; 4, base; 5, apex; 6, cross section; 7, kernel in position; 8, base and apex of kernel; 9, 10, kernel, split; 11, kernel, edge view; 12, kernel, lateral view. [Photograph by Collins.]

U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN NO. 26.

B. T. GALLOWAY, Chief of Bureau.

SPANISH ALMONDS

AND

THEIR INTRODUCTION INTO AMERICA.

BY

DAVID G. FAIRCHILD, Agricultural Explorer,
SEED INTRODUCTION AND DISTRIBUTION.

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WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1902.

LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief,
Washington, D. C., July 7, 1902.

Sir: I have the honor to transmit herewith a paper on Spanish Almonds and Their Introduction into America, and respectfully recommend that it be published as Bulletin No. 26 of the Bureau series. The paper was prepared by Mr. David G. Fairchild, Agricultural Explorer, and was submitted by the Assistant in Charge of Seed and Plant Introduction.

Respectfully,

B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

PREFACE.

The accompanying paper is one of a series, which it is hoped can be issued from time to time, embodying observations made on specific crops by the agricultural explorers of this Department. Already several such papers have appeared and have aroused general interest in the subjects discussed.

Almond culture is an important industry in California, and, to a more limited extent, in Arizona and Utah. It is hoped, therefore, that this bulletin may prove of value to these regions. The introduction of the varieties of almonds herein discussed can not, apparently, be without great benefit.

ERNST A. BESSEY,
Assistant in Charge of Seed and Plant Introduction.

OFFICE OF SEED AND PLANT INTRODUCTION,
February 14, 1902.

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SPANISH ALMONDS AND THEIR INTRODUCTION INTO AMERICA.

INTRODUCTION.

The most valuable almonds of commerce are those grown in southeastern Spain. They are hard-shelled varieties and bring on the English and American markets 8 to 10 cents a pound more than any other sort, being in favor with confectioners for the manufacture of their best salted and sugar-coated almonds. These superlative sorts are imported from Spain by Boston and New York importers for retail to confectioners, many thousands of dollars being expended annually on this import.

Since 1885 Californians have been growing almonds quite successfully, and there are in certain valleys in the State localities where almond culture has become distinctly profitable.

According to the statistics collected by Mr. W. A. Taylor and published in the Yearbook of the Department of Agriculture for 1897 as much as 2,500,000 pounds had been produced in California in a single year prior to that date. Commercial estimates of the crop of 1900, furnished through the kindness of Mr. Taylor, place the almond yield of California at nearly 5,500,000 pounds in that year. The quality of the product is excellent for many uses, but confectioners prefer the imported article, as is evidenced by the fact that they imported in 1897 over $683,000 worth, largely from Spain. It has been assumed that the superiority of these Spanish nuts over the Californian lies in some unexplained and unexplainable peculiarity in the climate of southeastern Spain which finds no equivalent in California. The better informed growers, however, have known that the question was largely a matter of variety, and that the best Spanish sort had never been introduced into America. The matter of its introduction may have been discussed prior to 1893 by California horticulturists, but up to that year, so far as the writer has been able to discover, only the kernels, which form the commercial article, had been known in this country. In 1893 the Division of Pomology of the Department of Agriculture secured from Mr. Charles Heath, United States consul at Catania, Sicily, a handful of the uncracked nuts which he had secured from a firm in Malaga. These were of the so-called Jordan variety, and were said to have been grown on some islands off the Spanish coast. The remarkably distinct form of these nuts at once attracted the attention of Mr. H. E. Van Deman, then Chief of the Division of Pomology, and Mr. W. P. Corsa, the nut specialist of the Division, and in his monograph on nut culture in the United States,[a] which was published three years later, Mr. Corsa gave a description, with a drawing of the nut, and strongly recommended its introduction into California. Owing to many difficulties this suggestion seems never to have been followed, although almond growing in California has continued to increase in importance, and certain French sorts, including a kind known as the Provence and supposed to be the same as the Jordan, have been introduced and are now on trial in that State. Heretofore no one has succeeded in getting the scions of trees of the best Spanish almonds, although their kernels continue to be imported into the country from Malaga and Alicante, on the southeast coast of the peninsula.

As agricultural explorer of the Section of Seed and Plant Introduction, the writer last August made a somewhat hurried trip through the almond orchards of Spain, at the time when the almonds were being gathered, to secure scions. It is a pleasure to say that the scions collected are already growing at several places in the United States.[b]

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[a] Nut Culture in the United States, Embracing Native and Introduced Trees. U. S. Department of Agriculture, Division of Pomology. 1896.

[b] The following statement regarding an earlier introduction of Spanish almonds than that made by the Department was received from Mr. W. A. Taylor after Mr. Fairchild's manuscript had been sent to the printer:

Since the Jordan almond buds secured by Mr. Fairchild reached this country and were successfully propagated, Mr. John Rock, manager of the California Nursery Company, Niles, Cal., has sent us samples, evidently of the true Jordan variety, grown on trees imported by him in dormant bud in February, 1897. Mr. Rock's statement regarding his introduction is substantially as follows:

In 1896 he requested a French firm to secure buds of the Jordan almond in Malaga, Spain, and to propagate them for him at their nursery in France. This was done, and a lot of dormant budded trees on Myrobolan plum stocks reached him on February 17, 1897.

Fearing that the almond would not thrive on the Myrobolan roots, he grafted 100 of these dormant buds on old peach trees, using the entire stock of the Myrobolan plum, with the dormant almond bud upon it, as a scion, the balance being planted out in the usual way. Nearly all grew, but instead of being of one variety they were found to consist of many kinds, most of them resembling the common, hard-shelled almond. They made but a stunted growth and produced nuts in the third and fourth years. Three of the trees bore fruit that was apparently of the Jordan type, the nuts being of an oblong, curved sort.

Mr. Rock, early in 1902, sent samples of these nuts to Consul Ridgely at Malaga, who submitted them to dealers there for identification. They pronounced them the true Jordan almond.

It would appear from this that the credit for the introduction of the Jordan almond belongs to Mr. Rock, although the Department was not informed of this until after the stock secured by Mr. Fairchild had been established at several points in the United States.

THE ALMOND INDUSTRY IN SPAIN.

Almond growing in Spain is a local industry, its main centers being Malaga and Alicante, although other regions along the coast and even the Balearic Islands, it is said, produce small quantities of the nut. The culture is carried on with various degrees of carefulness. Large plantations on the plains about Alicante, carefully tilled and well taken care of, remind one of American orchards, with their straight rows of well pruned trees and cultivated soil (Pl. I, figs. 2 and 3). In many fields the almond, olive, fig, and carob trees are mixed, with no attempt at regularity, while in the region about Malaga the foothills are covered with almond trees, between the rows of which grapevines are planted. Whether owing to this mixed culture or for tradition's sake, the trees are planted far apart, 20-foot intervals being frequent. This does not appear excessive, as the trees reach a large size and live to a ripe old age, fifty years not being uncommon.

While the kind of soil no doubt plays a certain part in the production of a fine almond, the writer does not believe it decides in any way the form of the variety.

The best land for almonds in Spain is that of the foothills or sierras. This is a gravelly loam, which during August becomes as dry as dust and breaks up into irregular but not very hard lumps (Pl. I, fig. 3). It is of a light yellowish-gray, sometimes reddish color, and is underlaid by a bed of gravel and rock so firm that it is difficult to get a soil auger into it. Such soil, according to Prof. Milton Whitney, Chief of the Bureau of Soils, to whom samples have been submitted, resembles that of the foothills of California.[a]

The climate of this almond region is a very mild one. Freezes occur in winter and ice a half inch in thickness often forms on the water butts, but a minimum of less than 20° must be uncommon, even in the northernmost limit of almond culture, about Alicante. How severe weather the trees will endure while in dormant bud remains, therefore, to be tested in this country. As regards rainfall in this semiarid region, it is difficult to ascertain the facts, as no reliable published data can be found. From the statements of growers and old inhabitants,

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[a] The following is the report of a mechanical analysis of the soil from an almond orchard near Malaga, Spain, made by the Bureau of Soils:

	Per cent.
Organic matter	11.42
Gravel, 2 to 1 mm	6.96
Gravel, 1 to 0.5 mm	6.56
Medium sand, 0.5 to 0.25 mm	3.12
Fine sand, 0.25 to 0.1 mm	10.74
Very fine sand, 0.1 to 0.05 mm	7.64
Silt, 0.05 to 0.005 mm	33.54
Clay, 0.005 to 0.0001 mm	20.22

The water-soluble material is "0.13 per cent in form of bicarbonates."

however, the writer concludes that the months of July, August, and September are practically rainless and that the winter rains are neither frequent nor very abundant. The region is essentially a dry one, verging on the arid, and in sheltered portions of it, at Elche, even the tender date palm is grown. It is the only place in all Europe where this palm is grown extensively or where it bears really edible, though not excellent, fruit.

This region is a land of perpetual sunshine, and in it the olive, fig, pomegranate, the famous Malaga grape, and the carob form characteristic cultures, although the center of each of these cultures is not in the immediate locality. The olives, for example, which furnish the Spanish olives of commerce, are grown farther inland, about Granada and Seville; the figs are more important on the Balearic Islands and in southern Portugal; the pomegranates are raised on the salt lands, where figs refuse to do well; the orchards of carobs are largest about Valencia, some distance from the almond region; and the Malaga table grapes have their center about Almeria; the raisin grapes are in the neighborhood of Malaga, it is true, but occur largely in the valleys, while the almonds are generally grown in the foothills. (Pls. II and III.)

VARIETIES OF SPANISH ALMONDS.

It is probable that there are a score or more varieties of Spanish almonds which have been propagated by budding, but owing to the antiquated methods in vogue in the almond regions, little reliable information about most of these sorts is obtainable.

The writer was astonished to learn how local these sorts are and how little could be learned from one grower about sorts grown in even a neighboring locality. This would not be so surprising if one remembered the dearth of horticultural literature at the disposal of the almond growers. Probably many identical sorts are known by different names in different localities.

The English buyers, who were formerly about the only ones, have given names to some of the sorts that are quite different from those known among the growers themselves. The best variety is known in commerce as the Jordan, and yet not once was this name heard applied to the variety by the growers. They call it the "Large e fine," a descriptive name meaning simply "the large, fine almond." As to the origin of this name Jordan there is nothing new to offer. It may be a corruption of the French word "jardin," meaning garden, or the name can easily have related to the origin of the first importations into England, erroneously supposed to have come from the River Jordan. If the word Jordan occurred in the Spanish trade the former assumption might have some weight, but the term seems to have originated among the English importers.

The trade names, as distinct from the varietal, relate to the grades more than to the different sorts. They are "donkeys," "horses," "tigers," "lions," "elephants," and "mammoths," according to the size of the shelled nuts. The "donkeys" are small and bring a lower price, while the "mammoths" are simply the abnormally large nuts found by the sorters who pick over the nuts by hand. These latter bring fancy prices, only a few boxes being secured during the year out of the thousands of all grades which are shipped.

As the nuts are all cracked on the plantation by the men, women, and children, and brought down on donkey backs to the small buyers in the villages, to be sent to the large storehouses of the exporters, these latter know their almonds chiefly from the character of the kernel. Peculiarities of the American tariff, it is said, make the export of shelled nuts more profitable. Purely mechanical devices for grading these almonds, similar to the gold-coin weighing chutes of banking houses, would do away with much of the unnecessary labor of sorting.

There are two more or less distinct types recognized by the exporters of almonds, but these include several varieties.

The Jordan type of nut (see frontispiece and Pl. IV, fig. 1) is the long, narrow, but plump sort, with exceedingly hard, smooth shell, truncated base, and somewhat bent apex, with edges free from a sharp knife-like character common to many bitter almonds. The edge view is more or less arrow-shaped, and there is a distinct dorsi-ventral character to the nut. Its length alone distinguishes it from others of the Spanish sorts, it being by far the longest and slenderest type. Characters in the foliage may be discovered which will distinguish this from other types. No striking peculiarities were noticed, no opportunity occurring to make very careful comparisons.

The fruit itself is rather thin fleshed and covered with a heavy pubescence. The kernel in good specimens nearly fills the cavity of the nut and is covered with a most delicate papery skin. This skin is much thinner and more delicate than that of any other almond in the trade and is one of the most valuable qualities of this variety. In flavor and texture the flesh surpasses in delicacy any other kind.

Attempts have been made to grow this Jordan variety in the neighborhood of Alicante, but without success. Those of the growers with whom the writer talked knew nothing about the sort, so it seems reasonable to assume that these attempts were not made on any considerable scale.

The Valencia class of nut (Pl. IV, figs. 2, 3, and 4; Pl. V, fig. 1; Pl. VI, fig. 1) is radically different in shape from the Jordan, being a short, decidedly heart-shaped form, with a flat, broad kernel, thicker skin, and somewhat less delicate flesh. The longest of these Valencias are often used by shippers for the adulteration of their Jordans, and the extent to which this adulteration goes on is evidenced by the mixed lot of shapes one sees even among the sugar-coated almonds of the confectioner. Several distinct varieties of almonds are sold by the exporters as Valencias, and a lot of seedling ungrafted trees doubtless contribute their share to make up the bulk of this high but second grade almond.

The two best of the Valencia type found in cultivation in more or less large quantity were the Planeta (Pl. I, fig. 1; Pl. IV, fig. 3; Pl. V, figs. 1 and 2), which is the popular variety grown about Alicante, and the Pastaneta (Pl. IV, fig. 2), which, although superior in flavor and form to the Planeta, is a shier bearer and has proven less profitable. The Planeta is heart-shaped, is much thicker at the base than the apex and with sides unusually straight, while the Pastaneta has a very plump, striking form, truncated at both apex and base. Figures 2 and 3 in Plate IV show these differences distinctly. The Castillet and Fabrica are other sorts of the same general type found growing in a single garden at Alicante, and they merit mention here only to point out the fact that there are doubtless a large number of distinct varieties scattered through the orchards of Spain.

The Valencia nuts are grown about Alicante, and not, as the name would indicate, about Valencia, which latter is distinctly the citrus province of Spain.

The Mollar is a name given to a variety of the soft-shelled almond grown largely for home consumption. (Pl. VI, fig. 1.) It was found growing about Alicante, but the writer suspects it is a name given to any soft-shelled sort. Seedlings without any local names, even, were shown, and some were of sufficient promise to indicate plainly that much can be expected from the seed of these best sorts if judiciously selected. With a view of furnishing almond breeders in America with material for selection, a quantity of nuts was secured for distribution. The bitter almond, used for stocks, is a little, round sharp-pointed, plump-formed nut, at once distinguishable from the grafted sorts. (Pl. IV, fig. 5.)

METHOD OF PLANTING AND CULTURE.

Most of the almond trees of Spain are grafted, and the bitter variety is usually employed as a stock. Few nurseries exist in the region, and these pay little attention to the almond. Not a single nursery of almond trees was seen, and the writer was informed that, in most cases at least, the seeds of the bitter almond were planted in a rough seed bed, the young trees transplanted to the places they were to occupy in the orchard, and when two years old, or even more, were budded. Budding is done in the spring. The trees are not commonly budded near the ground, but at a height of 2 to 4 feet above it —a fact plainly evident on all the old trees, which show the point of union of stock and bud some distance above the base of the trunk. (Pl. V, fig. 2; Pl. VII, figs. 1 and 2.)

The flowering season is the deciding moment for the almond more than for almost any other fruit, for it is the earliest flowering of all our cultivated fruit trees, and consequently most subject to injury by late frosts. Even in the sierras about Malaga a total loss of the crop sometimes occurs in certain valleys as a result of a local late frost. The flowering season for the Jordan begins in January or February, as nearly as can be made out from the conflicting statements given, and is not appreciably later for the other sorts grown near Alicante.

The culture as carried on in Spain is simple enough, and seems to consist, in most localities, of watching for the nuts to ripen and in beating them from the trees when the proper season has arrived, which is in early August. (Pl. III, fig.3.) The nuts are easily separated from the dry, leathery flesh, and are spread out on the rocks to dry, or carefully piled in the courtyard for safe-keeping. (Pl. VII, fig. 3.) When dried sufficiently they are cracked and the kernels taken from them, packed in bags and boxes, and shipped by pack mule to the nearest buyer.

GUMMOSIS OF THE ALMOND.

In some of the almond orchards about Malaga, which were in rather a poor condition, trees were found which were dying from a kind of gummosis that manifested itself in a dying of the bark of the main trunk, a withering and death of the tips of the twigs (Pl. VI, fig. 2), and the formation of gum drops as large as a turkey egg on the trunk and main branches. The fruit of the trees suffering from gummosis was also affected. The shell was discolored in spots, and the kernel was often spotted or the tip covered with a soft gum, which was more or less slimy to the touch. Many trees were seen about the small town of Casara Bonella which were doomed to a speedy death from this disease. Whether or not this gummosis was the effect or the cause of the trouble the writer is unable to say. It seemed to cause the growers no alarm, and was considered by them as a well-known trouble, its prevalence varying with the season. Specimens of the diseased trunks have been submitted to an expert in the Department, and it is possible the cause of the trouble may be discovered.

POSSIBILITY OF ESTABLISHING THE JORDAN ALMOND IN AMERICA.

The principal difficulty in the successful introduction of the Jordan variety of almond into America will be to find localities suited to almond culture which are not subject to late frosts. The soil conditions, if suited to the growth of other good varieties, will, in all probability, fill the requirements put upon them by this superlative sort. Californians have shown already that they can grow from a half million to two and a half million pounds of almonds per year, and of a quality which "compares favorably with all but the best;" and if regions free from January and February frosts can be discovered there seems no reason to doubt the successful issue of an experiment.

Why no other nation than Spain has grown these varieties is not difficult to explain when one realizes that the nuts are exported almost exclusively to England and this country, and that even the French markets do not handle them. The natural inertia and indifference of the growers in Sicily account for the failure to thoroughly test the cultivation of the Jordan almond there.

Although California is the largest almond producer in America, there are small areas in Texas, New Mexico, Arizona, Nevada, Utah, Idaho, and Oregon where growers should be found who are willing to experiment with these introductions.

DESCRIPTION OF PLATES.

Frontispiece. Jordan almonds. Natural size. 1. Ventral view. 2. Lateral view. 3. Dorsal view. 4. Base. 5. Apex. 6. Cross section. 7. Nut split to show kernel in position. 8. Base of kernel at left; apex of kernel at right. 9 and 10. Kernel, split. 11. Kernel, edge view. 12. Kernel, lateral view

PLATE I. Almond orchards about Alicante.—Fig. 1. A single large tree of the variety Planeta.—Fig. 2. One of the largest almond orchards near Alicante, showing a fine state of cultivation and freedom from weeds and other vegetation.—Fig. 3. Cultivating an almond orchard near Alicante in August. Note the character of the soil and the freedom from weeds.

PLATE II. Jordan almond orchards about Malaga.—Fig. 1. The low foothills covered with olive and almond trees.—Fig. 2. An old almond orchard among the hills near Cartana. Notice the clean culture.—Fig. 3. Tree of Jordan almond, near the city of Malaga, from which scions were obtained for introduction into the United States.

PLATE III. Scenes in the Spanish sierras, where the best Jordan almonds are grown.—Fig. 1. The village of Almogia; almond trees in the foreground.—Fig. 2. Scattered almond trees on the mountain side.—Fig. 3. Beating the fruit from an almond tree on the mountain side.

PLATE IV. Nuts of five varieties of Spanish almonds fresh from the trees. These are shown in ventral and lateral views within the fleshy envelope and lateral view with half of the envelope removed. All figures reduced one-third.—Fig. 1. Variety Jordan from Malaga.—Fig. 2. Pastaneta from Alicante.—Fig. 3. Planeta from Alicante.—Fig. 4. Mollar from Alicante.—Fig. 5. Bitter almond from Malaga, used as stock for the Jordan.

PLATE V.—Fig. 1. A branch of Planeta almond from Alicante, showing foliage and ripe fruits.—Fig. 2. Tree of Planeta almond growing near Alicante, showing enlargement of trunk due to grafting. Note the clean culture given to the soil.

PLATE VI. Fig. 1. A branch of Mollar almond from Alicante, showing foliage and ripe fruits.—Fig. 2. A branch of Jordan almond affected with gummosis, from a garden at Casara Bonella, Spain.

PLATE VII. Fig. 1. Tree of Jordan almond from which scions were obtained. The enlargement on the trunk is at the point where the tree was grafted.—Fig. 2. Branch of Jordan almond just cut from the tree, showing foliage and ripe fruits. Large almond trees in the background.—Fig. 3. A group of almond growers, descendants of the Moors, in an old Moorish village near Malaga. In the foreground are heaps of uncracked almonds.

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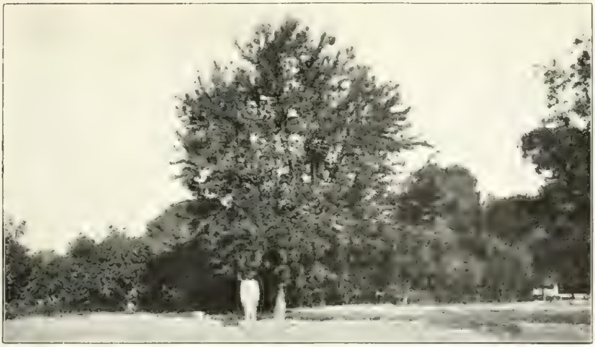


Fig. 1.—Single Large Tree of Planeta Variety.

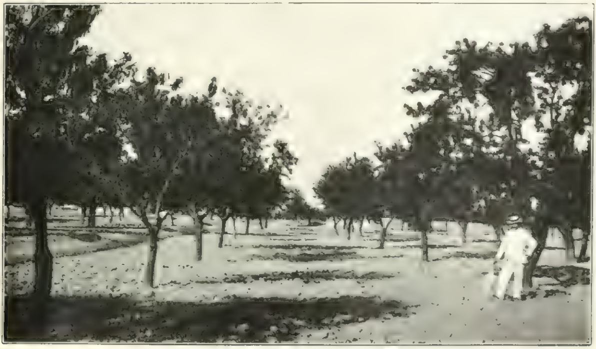


Fig. 2.—One of the Largest Almond Orchards near Alicante.

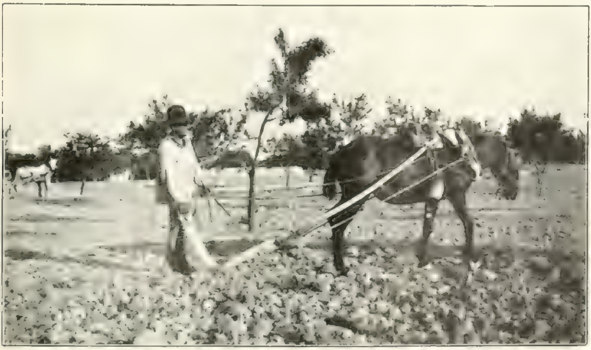


Fig. 3.—Cultivating an Almond Orchard in August.

Almond Orchards about Alicante.

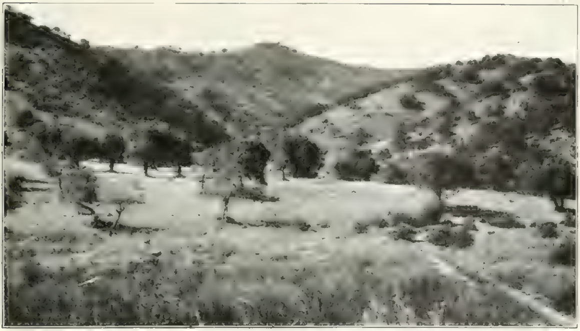


FIG. 1.—LOW FOOTHILLS COVERED WITH OLIVE AND ALMOND TREES.

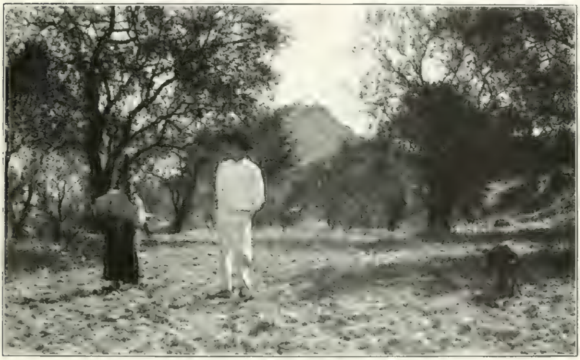


FIG. 2.—AN OLD ALMOND ORCHARD AMONG THE HILLS NEAR CARTANA.

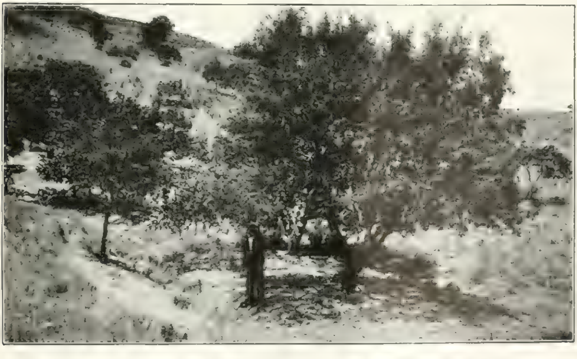


FIG. 3.—TREE OF JORDAN ALMOND NEAR MALAGA, FROM [illegible] TAKEN.

JORDAN ALMOND ORCHARDS ABOUT MALAGA.

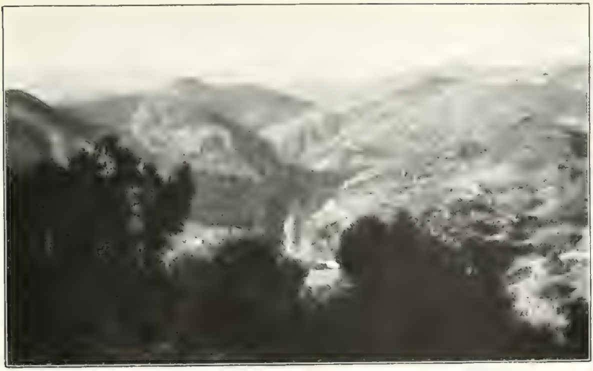


Fig. 1.—The Valley of Andalusia, Almond Trees in Foreground.

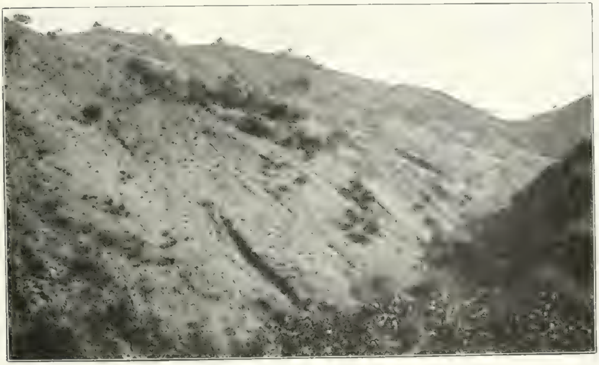


Fig. 2.—Scattered Almond Trees on the Mountain Side.

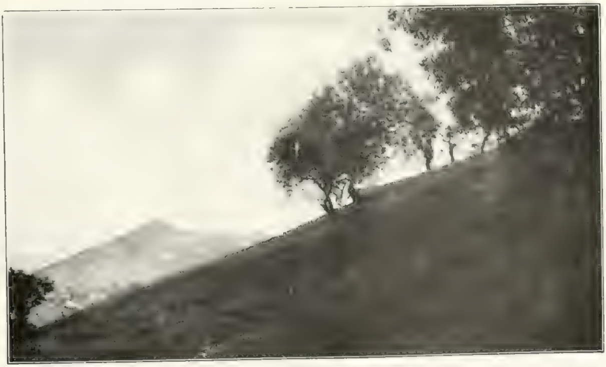
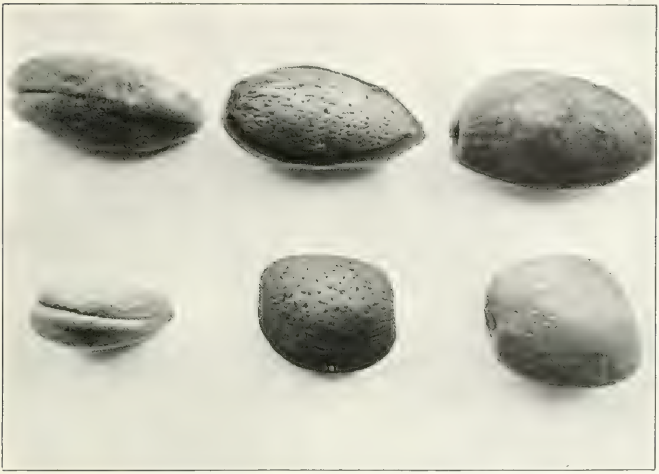
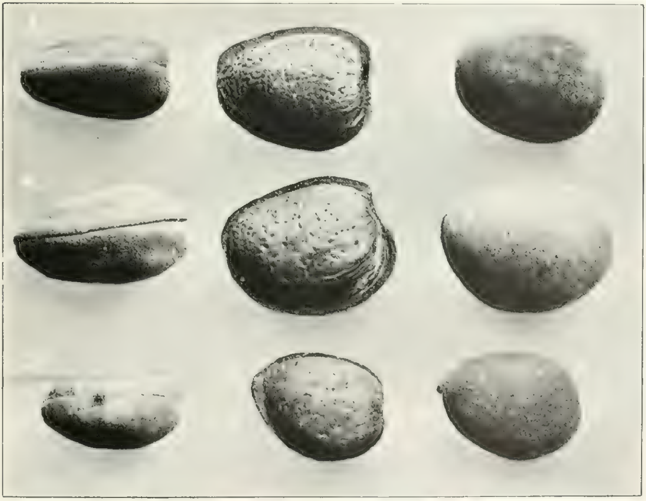


Fig. 3.—Beating the Fruit from an Almond Tree on the Mountain Side

The Spanish Sierras, where the Best Jordan Almonds are Grown.



1. JORDAN ALMONDS FROM MALAGA. 2. PASTANETA ALMONDS FROM ALICANTE.



3. PLANETA ALMONDS FROM ALICANTE. 4. MOLLAR ALMONDS FROM ALICANTE
5. BITTER ALMONDS FROM MALAGA

VARIETIES OF SPANISH ALMONDS FRESH FROM THE TREES (REDUCED ONE-THIRD).

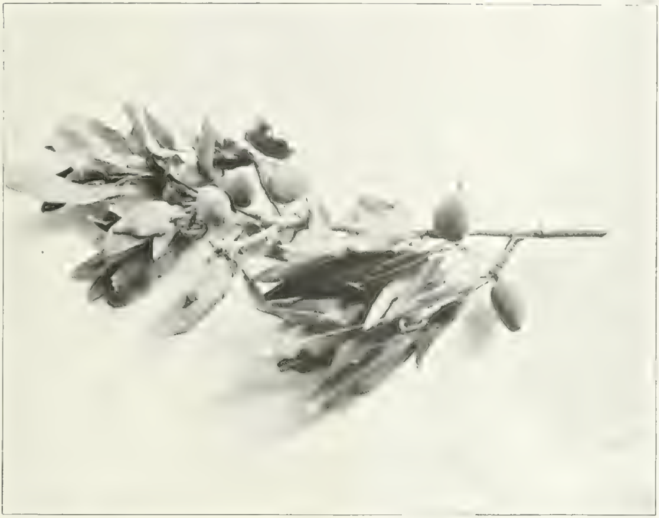


FIG. 1.—BRANCH OF PLANETA ALMOND FROM ALICANTE.

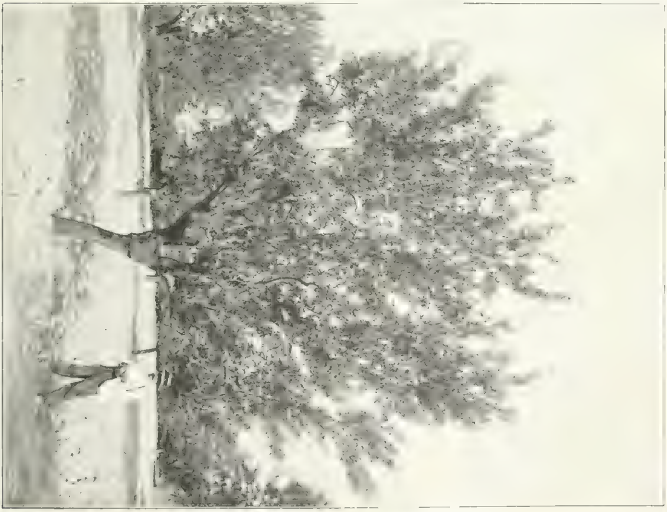


FIG. 2.—TREE OF PLANETA ALMOND NEAR ALICANTE.

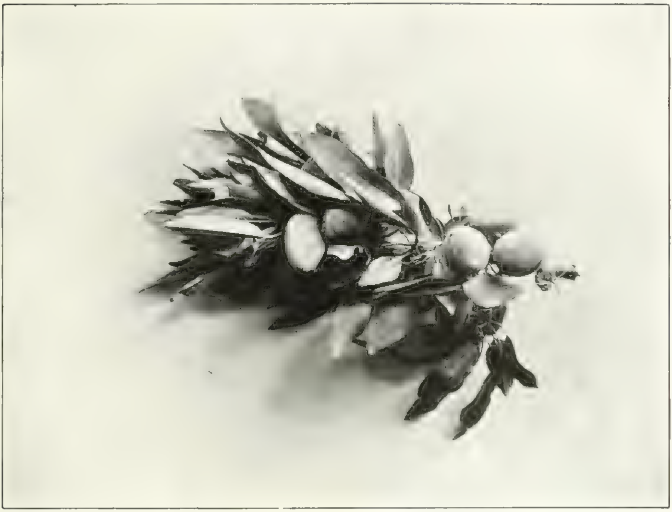


FIG. 1.—BRANCH OF MOLLAR ALMOND FROM ALICANTE.

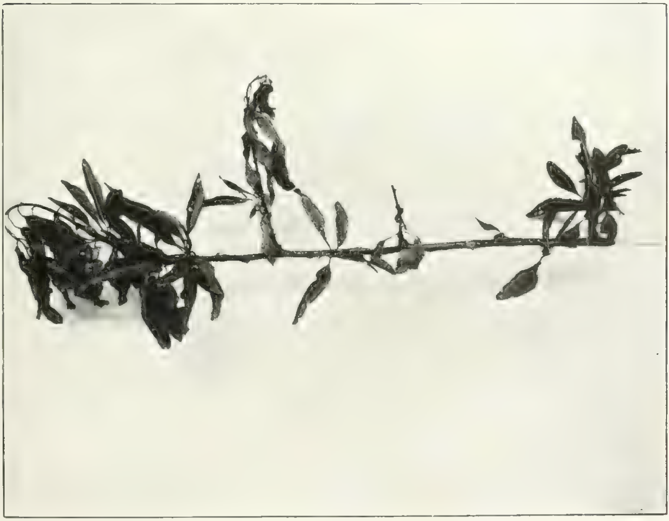


FIG. 2. DISEASED BRANCH OF JORDAN ALMOND FROM CASARA BONELLA.

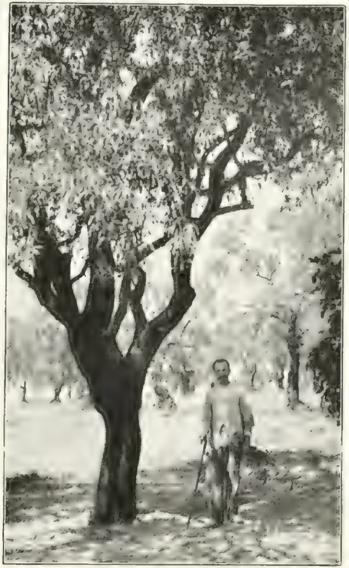


FIG. 1.—JORDAN ALMOND TREE FROM WHICH SCIONS WERE TAKEN.

FIG. 2.—BRANCH OF RIPE JORDAN ALMONDS JUST PLUCKED FROM THE TREE.

FIG. 3.—ALMOND GROWERS, DESCENDANTS OF THE MOORS.

U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN NO. 27.

B. T. GALLOWAY, Chief of Bureau.

LETTERS ON AGRICULTURE IN THE WEST INDIES, SPAIN, AND THE ORIENT.

BY

DAVID G. FAIRCHILD, AGRICULTURAL EXPLORER.

SEED AND PLANT INTRODUCTION AND DISTRIBUTION.

ISSUED NOVEMBER 20, 1902.

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WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1902.

LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief,
Washington, D. C., September 2, 1902.

Sir: I have the honor to transmit herewith letters and reports from Mr. David G. Fairchild, Agricultural Explorer, regarding agricultural conditions noted by him in travels in the British West Indies, Philippine Islands, Spain, China, Japan, India, and the region of the Persian Gulf, and recommend that they be published as Bulletin No. 27 of the Bureau series. The observations of Mr. Fairchild were made while he was traveling as the assistant of Mr. Barbour Lathrop on expeditions planned by him in cooperation with this Department.

These reports and letters have been submitted with a view to publication by Mr. A. J. Pieters, Botanist in Charge of Seed and Plant Introduction and Distribution.

Respectfully,

B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

PREFACE.

From time to time Mr. D. G. Fairchild, Agricultural Explorer for the Department, has given in letters to the Secretary of Agriculture his impressions of matters pertaining to agriculture as observed by him in his travels. Mr. Fairchild's wide experience and his habit of observing closely the agricultural conditions of the countries through which he passes make his communications of especial interest and value. The Secretary of Agriculture directed the publication of these letters, and five of them, written at different times from January 30, 1899, to August 22, 1902, together with three other papers, which from their nature seem to belong here, are included in this bulletin. Mr. Fairchild's letters are arranged chronologically and are published practically in full.

A. J. Pieters,
Botanist in Charge.

Seed and Plant Introduction and Distribution,
Washington, D. C., July 30, 1902.

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B. P. I.—33. S. A. P. I. & D.—27.

LETTERS ON AGRICULTURE IN THE WEST INDIES, SPAIN, AND THE ORIENT.

AGRICULTURE IN THE BRITISH WEST INDIES.

Port of Spain,
Trinidad, British West Indies,
January 30, 1902.

Considerable shipments of West Indian yams[a] have been arranged for, which I believe will form an addition to the root crops of the Gulf States, and of Florida especially. These yams are the staple food of the Jamaican blacks, and are worthy of general introduction to American tables. They are totally distinct from what are usually known in America as yams, belonging to quite a different family of plants. They yield a very large amount of food material per acre, the average of three years' trial in Trinidad being over ten tons.

You will be interested in an account of the preparations which are being made in the British West Indies to establish experiment stations and agricultural colleges for the investigation of problems in tropical agriculture and for the instruction of planters and natives in modern methods.

I was present at a special meeting of the Jamaica Institute in Kingston, where was discussed the plans for an experiment station to be established in Jamaica. I met there the representative scientists and agricultural educators of the island, and at their request spoke to them on the organization of American agricultural colleges and experiment stations. From the acquaintances made at the meeting I learned that it was their aim to model the new station after the American plan.

The Royal West Indian Commission has recommended in its report on the means which should be employed to relieve agricultural depression in the islands, the establishment of a department of agriculture to be supported by Imperial grant, and not, as in India, to be dependent upon the colonial government. The expressed purpose of this new department is the "restoring of the sugar industry to a condition in which it could be profitably carried on, and to encourage the establishment of other industries in such colonies as afford suitable conditions to supplement the staple industry." The funds at the disposal of the department are £17,500 yearly for ten years, and Dr. D. Morris, formerly assistant director in Kew, has been selected as commissioner. Contrary to my impression before coming here, this department does not include in so far as the expenditure of Imperial funds is concerned all the British West Indies. The colonies of British Guiana with 65 million acres, Trinidad with over one million acres, and Jamaica with more than 2½ million acres, were considered by the commission as able to support their own excellent experiment stations, and receive from the Imperial Government no grants in aid, the commissioner having only advisory power over the independent stations of these colonies. The total area, therefore, which will be affected by the Imperial grant of £17,500 is only a trifle over 825,000 acres, only 580,000 of which are cultivable. This does not necessarily mean that certain aid in the way of agricultural instruction may not be given to the colonies of British Guiana, Jamaica, and Trinidad.

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[a] See p. 12 of this bulletin.

Dr. Morris's plans for the expenditure of the funds intrusted by Parliament to his department have been outlined in the report of the commission published in 1897, as well as somewhat more fully in a speech before the agricultural conference held in Barbados previous to our arrival. They include as principal features the continuance of the very excellent experiments in the breeding of sugar cane which were inaugurated by Dr. Harrison, of British Guiana, while he was still in Barbados, and which have opened up a new field of research and proved beyond a doubt that the sugar cane is capable of very great improvement by means of crossing and selecting the seedling canes. There have been produced seedling varieties which contain more than one-fourth more sugar per ton of cane than the best Bourbon cane heretofore grown in these islands. The variety known as Barbados No. 147 has yielded three-fourths of a ton more sugar per acre than the Bourbon variety.

It should be noted, however, that notwithstanding the great interest in the experiments and the number of investigators engaged, there has been no systematic breeding done and the male parentage of the best canes is in no case known, while the female parent is in many cases a matter of conjecture. At least, after diligent inquiry, I have been unable to find any record of hand crosses being made.

A second feature of the work will be the introduction of new plant industries, and the various botanical stations already established on the islands of Tobago, Grenada, St. Vincent, Barbados; St. Lucia, Dominica, Monserrat, Antigua, and St. Kitts-Nevis, and the large and excellently equipped botanic gardens in Jamaica, British Guiana, and Trinidad make the systematic work of introduction a much simpler matter; and were the conservatism of the average English planter less great, many new and profitable industries, I believe, could be established. This conservatism is sure to play a great rôle in the carrying out of this feature of the work, and I am more fully convinced than ever that the American cultivator when he does once enter the field of tropical agriculture will make his mark, as he has in the agriculture of temperate regions, by introducing into the markets of the world a host of new food products. My attention has been called to a large number of tropical fruits that could be grown successfully in Porto Rico and which would bear shipment by fast steamer to New York, where, if once properly advertised, they would make a market for themselves and become as common as the pomelo or Japanese persimmon. These fruits are as yet nothing but seedlings, as no work in their amelioration has been done. What they could be bred into, the experienced American horticulturist can easily conjecture.

A third feature of the department's prospective work has to do with the establishment of agricultural schools on the islands of Dominica, St. Vincent, St. Lucia, and St. Kitts-Nevis for the manual training of orphans and destitute children; the employment of teachers in agricultural science in the higher schools and colleges; courses in agriculture of a normal character, to which the teachers in the elementary schools will be invited; and small grants to elementary schools teaching the theory of agriculture. In connection with the educational part of the plans of the new department, traveling teachers or instructors will be sent about the islands, holding meetings similar to the farmers' institutes in America. Agricultural exhibitions or fairs in the different islands will be fostered by small grants for prizes, etc.

The Imperial Government has already advertised for a new steamship line direct from Jamaica to the mother country, with a view to the encouragement of the Jamaica fruit trade, and a second to run between Trinidad, Barbados, and Canada (Halifax). No provision is made to develop the fruit trade with New York, although Dr. Morris informed me that this might ultimately be done. The fear that our tariff might at any time be changed to their detriment has decided the authorities to encourage trade with the mother country and Canada only.

After a somewhat careful study of the institutions of Jamaica, Barbados, and Trinidad, it becomes evident to me that there is not as yet what an American would consider a modern experiment station in the West Indies. There are well-equipped chemical laboratories and comfortable, well-arranged, botanical laboratories, but no happy combinations of botanist, entomologist, chemist, and agriculturist, which make up an American experiment station.

The most fully equipped botanical garden and the most profitable place in the West Indies for American students who wish to learn the elements of tropical agriculture is here in Trinidad, where a comfortable laboratory and an unusually rich economic botanical garden, under the able management of Mr. J. H. Hart, would enable a young American to pursue any line of research relating to the culture of tropical plants. Mr. Hart's interest in American methods and his acquaintance with American characteristics would make him a very profitable associate for any student who could be sent.

The key to the situation lies in the breeding of tropical plants, and already here in Trinidad the first successful attempts at grafting cocoa have been made. Cocoa, coffee, tea, and many other of the tropical food plants will soon be propagated by grafting, and a host of new and better varieties will be developed by hybridizing and selecting.

In conclusion, I wish to call attention to the object of the expedition which Mr. Lathrop is conducting, which is not to study exhaustively any one country, but to get an idea of its possibilities and ascertain whether or not it would be worth while to send an explorer into it to study its resources, spending months in such study, and at the same time to pick up such seeds and plants as would be of evident utility should they succeed when introduced into America. Only such species as are already successful as food or otherwise economic plants in the countries visited will be sent.

We have already sent, or arranged to have sent, the yams above mentioned, a collection of the celebrated Barbados sweet potatoes; four of the most noted varieties of East Indian mangoes; a number of plants of the "Trinidine" lime, the largest lime I ever saw; cuttings of a new variety of Poincettia, the showiest foliage plant I have ever seen; a collection of Trinidad varieties of Hibiscus, some of which are the showiest of their kind, and will surely be appreciated; a quantity of the "Para" grass, one of the most highly prized forage grasses of the Tropics, which will succeed admirably in Florida, it is believed; and seeds of the cashew tree, which bears what in the opinion of the connoisseurs is the most delicious of all table nuts, the cashew nut. The cultivation of this tree could be made to develop into an industry similar to the pecan industry of Louisiana, if properly introduced into Porto Rico or southern Florida.

JAMAICA YAM CULTIVATION.

The cultivation in Jamaica of the vegetables known as yams seems to date from a remote period, as no one, even of the oldest inhabitants, seems able to recollect when any of the varieties now grown were not sold on the markets. Yam culture has, however, within the last ten years, greatly increased, perhaps doubled, and in the eastern portion of the island the patches devoted to it are more numerous than those given up to any other plant, save the banana, which to-day forms the principal export fruit of the island. Fully 40 per cent of the native women who walk to market with baskets of produce on their heads, at this time of year at least, have their baskets filled with yams. The yam forms certainly one of the most important articles of exchange at the large markets, and it would be no exaggeration to say that it is the staple food plant of the Jamaica blacks and a most important vegetable of the Europeans and half-castes.

Just when and by whom the yam was introduced into Jamaica, I have not been able to discover. It is not, however, indigenous, although some of the varieties which will be mentioned later are probably of Jamaican origin.

The culture of this vegetable is not, as might be supposed, confined to the native blacks, but is given serious attention by some of the most intelligent planters on the island. Especially suited as the yam is to culture in the higher altitudes, it forms a part of many coffee planters' business to grow a certain number of yams for their own consumption and for sale to the blacks. The profits from such culture are not great, but the business is reasonably remunerative.

So far as the consular digest shows, no yams are exported to America, although were a taste for the finest variety created, there would certainly be a good market for it, as it is a vegetable of sufficiently characteristic flavor to win for itself a place on the finest hotel tables and attract the attention of the most exacting. The variety which is so superior to all others, is known by the name of "*Yampie*," and is worthy the serious consideration of Florida and Louisiana planters as a vegetable to be grown for the highest-priced or fancy markets. Certainly, a baked Yampie is more palatable than a baked Irish potato, and the crisp skin of the baked root has a flavor not possessed by any vegetable, so far as I know.

The culture of the plant is not so simple as might be supposed at first sight, and, as in the treatment of many plants, different varieties (in this case species, botanically speaking) require different methods.

The Yampie is a vine resembling our American species of smilax somewhat, with clusters of large fleshy roots like sweet potatoes. It is propagated by what are called "heads," which are no more than the extremities of the enlarged roots, containing adventitious buds which under suitable condititions are able to develop into new vines. These heads are planted (in Jamaica, at any time of year almost) in hills 6 to 8 feet apart each way, 3 heads being placed 6 inches or so apart in each hill, and a stout 8-foot pole is driven near one of the heads, upon which the vigorous vines are trained. Planted in rich soil they grow without any attention other than the cultivation necessary to keep the weeds down, and from each single head several vines spring. These vines draw their nourishment from the head, sucking it dry as a squeezed orange, and by the time the vines are established on their own roots they begin forming underneath the heads the fleshy roots which form the crop. In the course of five or six months these roots are large enough to harvest. The roots are gathered without destroying the vines, and sometimes three or more crops are taken from one planting. After the harvest of the deeply buried roots, the portions above are allowed to grow and "make heads," as they say here. These heads are used to start a new plantation, being cut into large pieces, each containing several buds, and are then buried or covered in a pile, together with straw or leaves, until the buds start, when they are planted as just described. From one head several of the edible roots are produced, but the proportionate increase in comparison with sweet potatoes is in the latter's favor. The yield is not more than three or four times what is planted. So far as I could ascertain, it is the general practice in Jamaica to plant large heads, the larger the better, or at least large cuttings of the root itself. No such system of sprouting is employed as with the sweet potato: in fact, the idea prevails that the young plant is dependent for too long a time upon what nourishment it draws from the head to make such a method possible. Only feeble plants would result.

Of the recognized varieties of yams, the Negro yam, Lucy yam, or Blue Vine yam, which are considered by Mr. R. W. Miles, one of the best informed growers of these plants in the island, as synonymous or at least only slightly different varieties, is that bearing in the shortest time from planting. If planted in April it matures its crop in October. The White yam, although requiring longer to mature, is a much better keeper; in fact, it can be kept for months with perfect ease if the broken surfaces are painted with a mixture of quicklime and water. The Affoo or Yellow yam is extensively grown, but is considered no better than the White and is inferior in keeping qualities. The Yampie is a poor keeper and from the difficulties in its culture, as well as its great inferiority in size, is, for amount of nutriment furnished, a much more expensive product. Slight bruises injure the roots and decays start in very quickly.

The yam plantations are more abundant and successful in the cooler moist regions of the island. I am informed, and from all appearances it is reasonable to assume that the plant requires a great deal of moisture.

Should an attempt be made to grow these yams in America it could only hope for success in regions where either the rainfall is heavy enough, over 20 inches a year, or where water for irrigation is at command. This is not stating that the plant can not withstand a reasonable amount of dry weather. The heads ought to be planted as soon as danger from frost is past in spring; advantageously, in boxes in a cold frame. Two months would be no exorbitant estimate for starting the heads, and they might well be planted in February under a cold frame. When planted in hills the heads should be well covered, the earth being drawn up well about the base of the vine, as with sweet potatoes. To maintain sufficient heads for planting the following season, the crop should be removed without disturbing any more than necessary the base of the vine and that collection of irregular root tips which forms the incipient head. The latter should be covered and allowed to remain as long as possible before digging.

Experience would teach what modifications of the methods in vogue here would be necessary in the Southern States of America.

It seems certain that the cultivation of these superior varieties of yams, especially of Yampie, would be lucrative if such yams were introduced into our northern markets and people were informed how they should be prepared. The Jamaica Cookery Book, issued in 1897, gives four or more different methods of preparing the Jamaica yam, but omits the important recipe for baking, although the baked Yampies are more palatable than any other form of prepared yam. The crisp browned skin of a Yampie baked for ten minutes in a quick native oven is especially palatable.

OPPORTUNITIES FOR AGRICULTURAL AND BOTANICAL RESEARCH IN THE PHILIPPINE ISLANDS.

S. S. "Tonkin."
Messagerie Maratime,
Between Singapore and Colombo,
April 17, 1900.

The agricultural and botanical institutions in the city of Manila are in the most dilapidated condition. In 1897 the more or less extensive herbarium and collections of natural history, as well as the library of scientific books relating to the Philippines, was accidentally burned. There are now existing in the city only a few miscellaneous works on the fauna and flora of the islands and a small but neatly kept museum of zoological and botanical specimens in the Jesuit Academy, in charge of Padre Simon.

Some works on forestry which were formerly in the office of the Inspection de Montes, or inspection of lands, were sought for in vain. The office building was occupied by the Twenty-seventh Regiment and crowded with camp stoves and other army supplies, looking as little as possible like a forestry department. It is evident that this department was given more than usual attention by the Spanish colonial government, and as evidence of this Captain Ahern, of the board of claims, informed us that the forest laws were far more carefully drawn up and more comprehensive than those of our own country.

Judging from the large quantities of very excellent timber which have been used in the construction of churches and houses, the forests must have contained and still possess a wealth of exceptionally good tropical wood. Polished floors made of 14-inch boards, as straight as if newly laid and without a check, are a great rarity elsewhere in the Tropics, and such a floor as that of the Jesuit Church, which is as smooth as marble, made of large squares of hard wood, would be a novelty anywhere. In the astronomical observatory is a dark mahogany-brown table top, 6 feet wide and 12 feet long, of native "harra" wood, which shows the large size to which these forest trees sometimes grow, and corroborates the statements made in works of travel as well as by officers that large forests of giant trees exist, into the hollow stumps of some of which it is possible to ride on horseback.

With such valuable timbers, the problem of their protection and proper exploitation becomes an important one, notwithstanding the well-understood fact that comparatively few tropical cabinet woods pay for exportation to Europe or America. The Dutch have shown in Java what can be done in the forestry management of a tropical island, and their system is well worth study.

There are the remains of a botanical garden near the heart of the city which was formerly under the directorship of Dr. Regino Garcia, a man of intelligence and a botanist. Dr. Garcia was in the employ of the Spanish Government from 1866 to January 31, 1899, and received from that and other governments various decorations and diplomas for expositions of Philippine products. At present the garden is in charge of an American, and his supervision extends to the public plazas and roadways. The garden itself contains only about six or seven acres, lying between the two principal driveways to the "Lunetta" or promenade. During the insurrection prior to the American occupation, the iron fence about the garden was removed and many of the best specimens of plants dug up or cut down. The larger trees were roughly pruned and hacked to pieces, and so far as possible everything which could serve as a shelter for the insurgents against the fire from the walled city near by was pulled down. A small two-story frame building of five rooms and a gate-keeper's lodge were, however, left standing, and the former is being put into a habitable condition. As to labels, those most perishable and yet necessary adjuncts of a botanic garden, there are practically none, nor could I discover that there existed any list of the few hundred plants contained in the garden. A redetermination of most of the species will be necessary.

Although I have seen botanic gardens which were little more than heterogeneous collections of ill-kept plants and lawnless stretches of bare earth, this garden in Manila is at present the worst I have ever seen.

The street tree planting which is going on deserves careful direction in the selection of trees best suited for avenue purposes. Nothing could add more to the general comfort of the citizens of Manila than a replanting of the numerous small plazas and the setting out and protection of shade trees along such streets as are wide enough to admit them. It is no doubt true that many street trees which served to shelter the insurgents were cut down by the Spanish, but such sad looking wastes as the "Lunetta," are evidences that there never has been in Manila anything worthy the name of a park.

Maps of the city show that a series of parks and avenues could be easily arranged with the walled city as a starting point, which would greatly improve and beautify the place, and the old moat and canal, if properly handled, could be transformed into one of the most picturesque spots in the Orient.

I do not believe the botanical work done in the islands was ever great, and when compared with what Holland has done for her colonies it is as nothing.

It would be unfair in this connection to omit to mention the very creditable work of Soler y Vidal on the forest flora of the islands, or to fail to allude to the other Spanish botanists who have contributed to a knowledge of the Philippine botany, but considering the length of the occupation and the richness of the plant world one is forced to the conclusion that valuable botanical opportunities have been wasted.

The agricultural problems to be solved and the botanical explorations to be made are very attractive, and offer an interesting life to any young man who is willing to work for the interests of a native race like the Filipinos and identify himself with the development of a rich tropical archipelago.

Some of the questions which, according to certain prominent business residents, are most evidently worthy of consideration, pertain to the work of plant introduction and plant pathology; others relate to the complicated matters of native labor, imperfect means of transportation, and want of modern machinery; but the most important in the minds of all the business men, planters as well as exporters, is the quick pacification of the country districts and the regulation of the custom-house and other municipal departments.

The cultivation of tea is a possibility, but the profits will depend largely on the price of labor, which has been gradually rising since the American occupation of the islands.

Coffee of a reputed excellent quality was once grown in the islands, but the trees were destroyed by an insect pest, of which, Dr. Garcia informs me, the life history has been, in part at least, studied out. Whether the Ceylon coffee-leaf disease is already in the islands or not was not ascertained.

Good grades of cotton have been produced and the culture of Sea Island and Egyptian varieties has been suggested as likely to yield profitable returns and form an article of export. It is probable that some of the many islands possess a climate especially suited for cotton culture. The small island of Lombok, in the Dutch East Indies, it is said, grows a good quality of cotton for export, and its culture is entirely in the hands of the natives.

The Manila hemp industry is still a monopoly, although the plant grows well in other tropical regions, and could be easily cultivated in the Straits Settlements, according to Dr. Ridley of the Botanic Gardens in Singapore. According to information furnished by one of the largest hemp exporters in Manila, the methods of culture are those practiced with any semiwild plant, it being grown over a large area of forest land, especially in the regions about Albay. The problem of increased production is not the cultivation of more hemp plants to a given area but the invention of a machine of large capacity for extracting the fibre. With the old hand machines, which require only three men to work them, and are carried on the heads of the operators into the forests of the hemp plant, the extraction is done so slowly that for every stalk which is cut and stripped into fiber at least five are left to decay in the field. The rapidity with which the fiber deteriorates after the stalks are cut has so far prevented the work of extraction being done at one central point. Increased means of transportation might make such a central factory possible.

The manager of one of the largest tobacco factories, for which Manila is famous, asserted that the quality of the leaf received from the native growers was inferior to what it had been twenty years ago, and although it was well known that the original seed was imported from Habana, that no late importations of good tobacco seed from Cuba had been made. The distribution by the Government of a large quantity of the best Cuban and Sumatran seed is an experiment well worth making, and the careful selection of the seed from the best Manila-grown strains a matter of prime importance, considering the very large dividends paid by the Sumatra companies out of sales made principally in America, and the possibility of there being produced in the Philippines a cigar wrapper equal to the famous Sumatran.

There is a great variety of native-made fabrics which are most diaphanous in nature. These are woven in plain but pretty patterns, and are so universally worn by the natives of even the poorest classes that they give the street and market scenes an appearance of neatness and bright color not met with elsewhere in the East. These fabrics are made from the Manila hemp fiber and that of the native pineapple, and are often shot with threads of bright-colored silk. Though of a harsh texture, and objectionable when worn next the skin, they are easily washed and starched, and are of great durability. The Chinese of Singapore are said to pay big prices for this pineapple cloth, of which they make their loose, comfortable jackets. It is possible that improved machinery and an increasing Chinese demand may make the manufacture of these Manila fabrics a paying industry. As yet the fiber of the pine is obtained chiefly by means of primitive machines worked by hand.

The prospects for rubber cultivation are as yet unexplored. There may be localities where the Para rubber trees can be grown and will yield paying amounts of rubber, but the occurrence of a pronounced dry season on most of the islands will probably reduce the flow, as it does in Ceylon, below the point of profitable cultivation. An early survey of the islands with this in view should be made, and experimental groves set out if necessary. The employment of an expert acquainted with rubber cultivation might save the colony much time and money, as he could point out the regions in which rubber trees would be most likely to succeed.

For the orchid hunter the rich and little explored island of Mindanao will yield many new treasures. It is considered by an orchid fancier and successful orchid breeder of Manila as the most promising island in the archipelago for this family of plants.

The Manila markets have a large variety of native vegetables and fruits, but the absence of such a superior vegetable as the alligator pear and the great scarcity of the tropical yam, upon which the blacks of Jamaica live, indicate that there are many lines along which profitable plant introductions can be made.

Although the inertia of the Oriental native will be a constant drawback to the work of introducing new cultures, such successful examples as those furnished by the introduction of the cotton plant into Egypt during our civil war, and the civilizing effects of the introduction of coffee among the savage head hunters of northern Celebes in 1882 should be encouragement enough to induce our Government to try on a larger scale the civilizing effects of the introduction and improvement of tropical plants in the islands.

AGRICULTURAL CONDITIONS IN SPAIN.

Barcelona, Spain,
August 6, 1901.

Before leaving southeastern Spain, where I have been successful in getting the finest almonds in the world for our California growers, it gives me pleasure to write a few general impressions of the country.

The idea grows on one, with a prolonged stay, that this region is agriculturally now so far behind that it will have hard work to catch up. The price of farm labor in southeastern Spain has dropped to an equivalent of 21 cents a day. Spanish as well as foreign capital is chary of investment in new undertakings. There is wealth here, but the Spaniard can get 5 per cent on Government bonds and hesitates to exploit a mine or go into sugar beet raising lest some change in the tariff regulations will injure his business; he prefers, therefore, to invest his money in bonds and live quietly on the interest they bring. Foreign capital is afraid of changes and invests cautiously. Certain companies advertise that buyers will be charged for any changes due to new Government regulations.

The operations of the farm in southern Spain (Andalusia especially) are exceedingly primitive. Egyptian methods are not so crude in many respects. In some places the subsoil plow seems to be entirely unknown, and I have seen a wheat stubble field of at least 100 acres being worked over by mattocks; 15 to 20 men were working their way laboriously across the field.

The absence of cattle is most striking in southern Spain, no fodder except small patches of alfalfa under irrigation being obtainable. In place of cattle, large herds of mixed-bred goats are kept, and everywhere their high-tasting milk is served. The only butter used is in the hotels and houses of foreigners, and it is so bad that most foreigners prefer to go without it. Swedish and Danish brands are sold. Consul Ridgely, of Malaga, informed me that the duty on butter from America would have to be lowered before any considerable import could be made. My impression is that it will not be a big market, for the people have gone without butter for so many centuries.

Farm machinery of American and English make is being imported slowly. The agent in Madrid for an American pump manufacturer told me that his assistant who tried to sell an English reaper in a southern village was mobbed by the laborers and came near losing his life. Thrashing machines of large size are quite out of the question. I am told that the farmers will not combine and buy one, and are so jealous of one another that even a traveling thrashing machine would have a very hard time. Few farmers have enough grain to warrant their purchasing a machine for their own use. The old thrashing floor of Biblical times is in evidence everywhere. Every village has an open space outside the town where thrashing and winnowing by hand are done. I have seen 25 men and 20 mules at work on one of these floors, taking about two weeks to do what a 10-horse thrasher would accomplish in two days; every farmer with his own stack, thrashing-board, and mule.

There is one point regarding the thrashing machine which is complained of throughout the Levant. It does not crush and break up the straw sufficiently. In Egypt the straw is considered quite as valuable as the wheat, being fed to live stock as "tibbin." The old style of thrashing floor prepares the straw admirably for this stock feeding. Furthermore, the straw-chopping machines known here do not prepare the straw satisfactorily.

Commercial fertilizers are beginning to be used, but unfortunately spurious imitations have been sold, and they have prejudiced many farmers against them.

The principal cultures in Spain are the almond and raisin industries of the extreme southeast, the hard wheat of the interior dry regions, the Valencian orange and lemon plains of the northeast coast, and the olive orchards about Sevilla.

The almond orchards are scattered through many provinces and as a rule are small, the dry sierras and sheltered hillsides being preferred. There are several sorts which are shipped to the New York market, but the best, and the one that formed the principal object of my visit to Spain is the "Jordan." This has long been coveted by Californian almond growers, and as it is a distinct variety I see no reason, except the difficulty of finding valleys in California free from January and February frosts, why the plants sent will not grow as well there as they do in Spain. These are the finest almonds in the world and enormous quantities are sent to America.

The raisin industry has suffered very severely from Phylloxera, and is localized in a few towns along the coast, Almeria being one of the centers. Gradually all vines are being grafted on American resistant roots. I understand that these raisin varieties have been already introduced into California, but my time was so taken up with the almonds that I did not learn much about this culture.

Spanish wheat is not as a rule of first quality. The tender wheats, I am told, are lacking in gluten, and the hard wheats make a variety of macaroni inferior to that produced by Russian "Taganrog" wheat. I made some small preliminary purchases of tender and hard wheats which I believe will show resistance to black rust and be valuable on the plains.

There may be in the world other plains more fertile and highly cultivated than that of Valencia, but I have never seen them. The orange and lemon orchards extend on both sides of the railway as far as the eye can see, and the train travels for hours through them. Last year over three million boxes (of 100 fruits each) and thousands of freight cars loaded with unboxed fruit were exported; largely to England. This province of Valencia is the richest in Spain, except Catalonia, in which Barcelona is situated. Unlike Catalonia, its wealth comes from its exports to foreign countries, whereas Barcelona's wealth is built up on the sales of manufactured articles sold in the other provinces of Spain. Barcelona is said to have more industries than all the rest of Spain put together.

The methods of culture in Valencia are rational, and although the land is in the hands of small owners, I am told, there is a uniformity of varieties and more or less cooperation in the matter of shipping. I do not believe they yet understand the art of shipping as Californians do. The difference in gauge of their railways from those in France makes a transshipment at the border necessary, in which transshipment much time is lost and damage done.

The beet-sugar industry flourished very well for a few years, but is now, I am informed, being greatly overdone. Nowhere in the world does sugar cost more than in Spain. The import duty is something excessive, and it is no wonder the first beet-sugar factories made money.

Olives for pickling and export to America and England, and olives for oil, form, second to the cultivation of the vine for wine purposes, the next greatest culture. Many thousands of the olive trees were planted by the Moors a century or more ago, and the good and bad varieties are mixed together. The crop is a precarious one, insect pests being abundant, but a good year will yield very heavy returns, up to 80 per cent, I have been told. Forests of olives of many miles extent are traversed on the railways from Malaga to Barcelona.

The vine is in evidence everywhere and wine is said to be "cheaper than water" in some places. The methods of preparation are not as a rule modern and the wines are strong, and fetch (with some special exceptions) low prices on the market. The culture of wine grapes is no longer very profitable.

NOTES ON CONDITIONS IN CHINA.

COLOMBO, CEYLON, *January 4, 1902.*

We remained in Shanghai only so long as was necessary for the Japanese steamer on which we left San Francisco to unload her cargo of American dried fruit, tinned beef (with the Department inspection tags on it), and American flour.

European and American business in the city of Shanghai is booming. Many new houses are in process of construction, and of late the white population has considerably increased. New enterprises are seeking to get a foothold everywhere; office rents are high, and it is often well-nigh impossible to get suitable office rooms.

The missionaries, displaced by the troubles, are returning to their posts, and foreign merchants claim that the outlook for trade improvement is most favorable in this region, as Shanghai, at the mouth of an immense waterway, is and must remain the great distributing point of all central China.

I am informed that American trade is more than holding her own against that of other countries, and the impression seems to be that she has decided natural advantages and should be able to keep them. Japan's trade has greatly increased here of late, and she is not only an active but may become a dangerous competitor.

A twelve days' stop in Hongkong enabled me to go to Canton in search of the south Chinese peaches and plums, scions and trees of which, I am happy to write, are now en route to Washington, together with some promising leitchees, bamboos, and persimmons for California and Florida.

Canton, one of the largest of Chinese cities, said to have a population of more than two millions, lies seven hours by steamer up the great West River from Hongkong, which latter is for south China what Shanghai is for central China, the great distributing point.

The Cantonese metropolis lies in an extensive, fertile delta of rice fields and orchards, through which in every direction run navigable canals and river branches that form favorite retreats for the Chinese pirates, and the steamers plying on these waterways are provided with stands of loaded arms and quick-firing guns. Two years ago, after a good deal of travel in the Orient, I found Canton one of the most interesting places in the world, and a second visit has not led me to change my mind, although many Americans see nothing more in it than a "disgustingly filthy place."

A chair ride through the streets of this immense metropolis (although filthy and as narrow as the alleys of a steamer passage way) presents many curious sights, and suggests possibilities of future development along lines favorable to any business in competition with western commerce and manufactures. One can not fail to have forced upon him the tremendous amount of physical and mental power which lies waiting to be employed in more lucrative occupations than the careful chopping of a sheep's entrails or the making of exquisitely beautiful images of rice paste, which sell for a few cents apiece.

The precision of movement, the concentration, the earnestness of application, and the continual activity which are now exerted on the pettiest trifles, can not fail, when employed in the manufacture of articles which the white man wants, to have a marked influence upon the market supply of such goods.

Whether you watch the countless junks or sampans along the waterways, or jostle with the crowds in the narrow thoroughfares, the impression is the same; you are in the midst of two millions of the most industrious, temperate, and philosophically minded people in the world.

Canton was the home of many an emigrant Chinaman, and his abilities as a workman can be best understood if seen both in his own land and in the countries to which he has emigrated.

This populous city, which is almost entirely built up in one or two story houses, covers many miles of territory, and is surrounded by rice fields, orchards, taro patches, and groves of guava, while the fertile foothills in the interior are clothed, I am told, with orchards of chestnut, peaches, and plums, which supply in their season the fruit markets of the Cantonese.

Rice is the staple food, and there are many varieties suited to distinctly different uses. They even export to their relatives in America (smuggling it out of Canton because the export of rice is prohibited by imperial law) a variety which they consider superior to any of our home-grown sorts. The gardens of citrus fruits, leitchees, carambolas, and guavas are often surrounded by taro patches and paddy fields.

Everywhere one is impressed by the quantity of marsh plants cultivated. These in their several varieties play a most important rôle in the food economy of the Chinese, and we have much to learn from them regarding methods of handling our swamp lands.

"As is well known, the Chinese are good gardeners, and although one is disappointed to find how crudely they graft and propagate their plants, he must admire their appreciation of the value of manure, however disgusting the manner of its collecting may be. The secret of their success seems to be in the attention they give to each individual plant. They live with and care for it as a stable boy does his pet racing thoroughbred.

Two horticultural practices struck me as especially interesting. The *Man Tan* peonies, which are the Chinaman's pride, and for which he is willing to pay as high as a gold dollar apiece for each blossom, are grown in one of the towns near Tientsin until some time in December, when they are imported by the thousand into Canton, a week or more journey by steamer. Here they are repotted and brought into bloom in time for the Chinese New Year.

A variety of jasmine is started in a similar way in Canton, grown until flower buds begin to form and then is sent in great quantities to Tientsin, where it is planted in pots, brought into flower, and the fragrant blossoms are used to mix with the tea leaves during the drying process, in order to give them the desirable aroma. Should the matter of their use promise to improve the market value of the tea production of our country we will make it a point for investigation next autumn, securing, if desirable, a quantity of the plants for propagation. The Chinese and Japanese papers, by the way, have all printed telegrams regarding the success of the efforts of the Department of Agriculture in the home production of tea, and producers and shippers in Japan and China are much interested in the financial outcome of the experiments, though as yet they seem to be quite skeptical, believing the cost of picking will be too great.

There are two new elements which have recently combined to disturb the set conditions in this part of China—the American occupation of Manila and the war about Pekin. The former has led to a remarkable increase in prices of labor, hotel accommodations, and food products. Coolie wages have greatly increased in Hongkong since the Spanish-American war, and there is much complaint about the scarcity of Chinese labor in the dockyards and other new important enterprises that are being started.

Hotel prices are 50 per cent higher than they were before the war, and residents claim that the general cost of living has doubled in the last five years.

The effect of the Boxer troubles will be far reaching, for the Chinese Government, in order to pay the war indemnity, has levied a tax of the equivalent of 5 American cents a year on each rafter of every house in the country. Already the Viceroy in Canton is having great difficulty in collecting the taxes, and white people living there say that this tax is arousing a great deal of animosity toward foreigners, and that one of the results of the war, it is believed, will be to change the ideas of the upper-class Chinaman regarding Western methods and make him more willing to accept them.

The common people in the coast and river ports have been most unfavorably impressed by reports of alleged brutality of foreign troops, and, I am told, their opinion of the white man has been decidedly lowered. Foreigners come in for a share in the war tax, and already pay about 5 per cent ad valorem duty on practically everything imported.

Already American flour is being imported in large quantities into China, and is sold cheaper there than the native wheat can be grown and ground.

The growth of our agricultural as well as other exports to China will, I believe, be a phenomenal one, and will include many classes of canned and dried goods from our orchards, and preserved meats and dairy products from our farms and ranches.

There are, aside from these purely American products, many strictly Chinese things as yet unknown to our cultivators, which might probably be grown profitably for export into the Orient, such as the red watermelon seeds, of which the consumption must be enormous; the "Chinese olives," of equal importance; the wood oil tree, the product of which is used for all classes of painter's work; ginger, water chestnuts, dried persimmons, and a host of other products. The discovery of such new industries can only be made by the presence of trained observers who are not stationed so long in the regions as to lose touch with American conditions, but remain long enough to thoroughly master the methods of cultivation of the crops and secure the necessary seeds and plants for introduction.

I can give no adequate idea of the impression of wealth as a field for plant introduction work which this short visit to Canton has given me. It is worthy of all the attention which has been given to it in the past, and will amply reward any efforts which may be made in the future.

The great interest, however, of a visit to Canton is in the attempt one is continually and almost involuntarily making to forecast the probable development of the Chinese race.

From the close contact with the peasant classes of the various countries they visit into which your agricultural explorers are forced, they are placed, perhaps, in positions peculiarly advantageous for comparisons of the relative intelligence, industry, and endurance of the different races. The value of comparisons regarding the capacity of different races does not generally depend so much on long acquaintance with the customs of a single nationality as on a comparative knowledge of the inhabitants of many different countries.

The Chinaman is a marvel of industry and accuracy, and is probably developing with all the rapidity which his centuries of inherent conservatism will permit.

The farming class is, so far as I have observed, more intelligent about its own affairs, quicker, and vastly more industrious than the peasant class of Europe. These Chinese peasants are not as a rule unwilling to learn, and are quick to appreciate the value of tools which are really improvements over their own. The delight which a Chinese mulberry grower showed at the sight of a pair of modern pruning shears which I was using, could hardly have been equaled by a peasant in southern Europe.

There are everywhere the most unmistakable signs of progress, and the sooner Americans come to look upon China as a growing commercial nation the better it will be for our interests.

The accounts of the Chinaman's wonderful ability to imitate have not been exaggerated, but his reputed want of the inventive faculty does not stand the test. These conceptions are falsely colored, either by the blind prejudice of the transient visitor to China or the disappointment of the old white resident, who forgets how moderately the average workman of any old civilization is equipped with inventive powers.

One among many examples of their ingenuity will serve to illustrate how false this idea is. In Taku, during the construction, recently, of some very large iron flat boats or lighters with which to unload or coal the incoming steamers, the problem of lowering these heavy iron boats that had been constructed on a high framework became a puzzling one. Large derricks and expensive steam cranes were discussed. One of the Chinese master workmen suggested placing under the lighters a large number of columnar close-woven wicker baskets packed with sand. Then by knocking out the stays formerly employed the lighter would rest on the pillars of sand, and by puncturing the baskets the sand would gradually run out, allowing the heavy boat to settle to the desired level. This inexpensive suggestion of the Chinaman was followed by the European constructors, proving a complete success and saving much time and money.

Throughout China, the Europeans carry on their business by means of Chinese clerks, called "compradors." The comprador is an absolute necessity, and from being a mere accountant and interpreter he gradually rises to a position of control, becomes often immensely wealthy, and supports the European who originally hired him. This course of affairs is of frequent occurrence; so common, in fact, that the Europeans are often spoken of as merely the employees of the wealthy Chinese.

That the Chinaman understands how to accumulate wealth is so well known as to need no emphasizing. In a Hongkong paper I saw recently the notice of the death of a Chinaman worth $5,000,000 in gold.

One of the principal steamship lines between Hongkong and Manila, nominally American, is reported to be controlled entirely by its wealthy Chinese comprador.

The biggest English shipping company in China, which owns a large fleet of coasting steamers, employs only Chinese crews on its ships, and even sends the crews to England to come out with the new steamers they are building in large numbers. Even the new Japanese passenger line on the Pacific employs Chinese stewards. Last year the carrying trade of the China coast is said to have increased over 40 per cent.

In 1898, scarcely a single steam launch was owned in Canton, while to-day I am informed that there are between 300 and 400, mostly owned and in large part built entirely by Chinese. In the Chinese dockyard at Canton over eighty of these big, strong launches were turned out last year.

The Hongkong and Wampoo Dock Company, of Hongkong, pays so well that its stocks are quoted at $290 silver, and all of the laborers are Chinese, only the managers and draftsmen being Europeans. Plans are now in progress to build in Hongkong the largest dockyard in the world, one slip of which is to be 900 feet long, or 100 feet longer than the largest slip in the new Krupp yard at Kiel. This work will be done by Chinese. Near Canton, I am informed, a wealthy Chinese syndicate proposes to build dikes and reclaim several thousand acres of land to be used for rice growing.

An officer in the British army assures me that the Chinese arsenal at Tientsin is manufacturing cannon and small arms which fall very little short of being as good as those of European manufacture, and this without even the supervision of Europeans.

These are some of the facts that are being talked about here in the East, and they are unmistakable straws to my mind, showing that the awakening of China is going on with a rapidity which will soon astonish those Westerners who refuse to recognize the course things are taking.

THE PERSIAN GULF REGION.

YOKOHAMA, JAPAN, *April 8, 1902.*

I have just returned from a trip up the Persian Gulf to Bagdad in search of dates, hard wheats, and whatever else of interest was to be found, and take the first occasion to send a brief account of conditions in the Persian Gulf and lower Mesopotamia. The region is a difficult one to get into, being a long way out of the beaten track of travel, and I find that even in a place lying so near on the map as Bombay there is little to be found out about it.

Owing to the rigidness with which the Turkish quarantine laws are enforced, few English people from India go into the region, although there are regular weekly steamers of the British-India line going up the gulf, which, though small, are not very uncomfortable.

The trip from Bombay to Bagdad and back required two months, and the greater part of this time was spent in travel. The collections made during the trip include 224 date palms, representing 45 of the best varieties from the various noted date-growing regions; a number of Persian and Arabian hard wheats, in quantities large enough for preliminary trials; and several interesting fodder plants, about which latter, however, it is impossible to predict anything.

The main object of the trip being to secure the best dates and hard wheats, I feel it has been on the whole very successful; and predict an important future for some of the dates, which are sorts far superior to any that come on our markets from this region and are likely to ripen earlier than the north African varieties, which latter characteristic is considered by those interested in this new industry a most important one. The purchases which I have made and shipped for Mr. Lathrop include over 100 different things, and weigh about 10 tons. They left Bombay the 6th of last April and full particulars regarding them went forward.

Recent affairs at the Arabian port of Koweit have attracted the attention of the public to the question of the political control of the Persian Gulf. This trip along its shores tends to strengthen one's impression that affairs in that region are gradually coming to a head, and that it will not be long before important political changes in Persia and Arabia will take place.

Both the Arabian and the Persian coasts of the Gulf, as seen from the steamer, are precipitous barren cliffs or stretches of desert sand. Little indication of wealth is in sight, and the towns, with their flat-roofed mud houses and filthy streets, indicate the undeveloped nature of the country. There are extensive tracts of territory in the interior, I am informed, where the subterranean streams of fresh water come to within 3 feet of the surface of the soil. But it was only after leaving the Gulf of Persia and starting up the broad river Shat-el-Arab, which is formed by the junction of the Tigris and Euphrates, that I began in some small measure to realize the extent of the unimproved lands of the Sultan's possessions in Arabia.

Chaldea and Mesopotamia are Biblical places to whose present conditions I had never given any thought, and the actual conditions of the region were a great surprise to me. It is easy to understand where the great wealth of Babylon and Nineveh came from after traveling for five and one-half days up a muddy river which so nearly fills its banks that the inhabitants of the village have only to reach down from them to wash their hands in its waters. On both sides as far as the eye can reach stretch level plains of alluvium which is so fine that one could hunt all day without finding a stone the size of a man's fist.

The Tigris, for over 700 miles in length, from Basrah to Mosul, resembles more a huge crooked irrigation canal than anything else, and, with the exception of a stretch of 70 miles of date gardens between Mahammera and Kurna, the lands on both banks as far as one can see are practically unimproved desert.

Scarcely a shrub or plant of any size has been spared by the wandering tribes of Arabs, who grub up even the smallest roots for firewood. Yet much of this region, it is supposed, was once covered with vegetation, and at one time supported many millions of people.

The recent excavations are revealing every year more evidences of the former immense wealth of this remarkable country, which has remained so many centuries neglected. There exists perhaps nowhere in the world such a single area of unimproved fertile desert land which is capable of irrigation. That the region has been irrigated is shown by the ruins of old canals which are supposed to date back, some of them, to Babylonian times, and which, according to recent surveys of a French engineer sent out by the Turkish Government, could be repaired and put into operation.

One of the principal canals of this old system, the Nahr Wan, is over 185 miles long, and must, with its thirty branches, have irrigated many millions of acres of land which are now as barren of vegetation as the deserts of California.

The soil is adobe, remarkably like the Nile silt, and capable without manuring of growing almost any crop which will mature in a subtropical climate.

The occasional gardens of the native sheiks, or chiefs, along the river are full of all sorts of citrus fruits, apricots, peaches, and pomegranates, proving the suitability of the soil. The fine hard and soft wheats grown there attest, further, its value for grain-growing purposes, and yet with all this immense territory, through which I traveled for nearly a week, the largest place on the banks of the Tigris between Basrah and Bagdad was a town of less than 4,000 inhabitants.

The situation partakes of the incredible. No one I met in the country, not even the Turkish official in charge of the Sultan's estate, or Sheik Kassem Kedery, one of the wealthiest chiefs of the place, could give any idea as to the number of millions of acres there are in this fertile valley, which is almost as level as the table I am writing on.

As in the valley of the Nile, patches of salt land are to be seen here and there, but to wash this salt out there is a water supply all the year round waiting to be tapped by canals.

The winter climate is as delightful as that of California in the same season, but the summers are about as hot as anywhere in the world.

There are very few native inhabitants, but these few are sober, and, as Orientals go, industrious; and yet this whole region is almost as barren as the desert of Sahara.

The recent discoveries of oil on the Persian side of the Karun River, one of the tributaries of the Shat-el-Arab, are possibly the beginning of a new era for Mesopotamia, and the Anatolian railway through Asia Minor to Bagdad, for which Germany holds the concession, although looked upon only as a very remote possibility by the white residents, may open up this neglected corner of Arabia to planters with large resources.

The concession for the exploitation of the oil recently discovered at Kasr-i Sherin was granted by Persia to an English millionaire mine owner, and it is interesting to note that the new oil fields lie in disputed territory between Arabia and Persia. If the borings, which are being made by an American expert, should prove the existence of really extensive oil fields, Turkey may put in a claim for the territory and the matter become subject for an international dispute. From an agricultural standpoint these great valleys of the Tigris and Euphrates will have to be reckoned with as a future center of production of grain, cotton, dried fruits, wool, and live stock. They are capable of producing all of these in quantities only limited by the amount of water which the river can supply.

The Euphrates is said to be a sluggish stream, with many sand banks and comparatively little water, but the Tigris is a river varying in width from 250 to 500 yards, in its narrowest banks only reaching 50 yards, and flowing at a rate of from six-tenths of a mile to 4 miles an hour.

America's interests in the gulf are represented by less than a score of missionaries, whose medical work, whatever the Mohammedans may think of their missionary work, is highly spoken of.

There are good opportunities for American trade in wind-mills, farm machinery, piece goods, etc., and through the efforts of Mr. Hurner, our vice-consul at Badgad, a contract is being made by which an American company is to build a steel bridge across the Tigris to take the place of the present most dilapidated pontoon affair of almost pre-Babylonian simplicity.

Whether Americans will ever take a hand in the opening up of this wonderfully fertile region or not, they can not fail to be interested in it as a country of immense agricultural wealth and a possible future competitor in the markets of the world.

The principal plant industry of the country, the culture of the date, is dependent in a measure upon the American market, which is the biggest buyer of the best quality of this fruit.

BREEDS OF MILCH CATTLE AND CARABAOS FOR THE PHILIPPINE ISLANDS.

During a stay in Ceylon and a visit to Poona, India, my attention was called to the question of the milk supply of these tropical regions.

Notwithstanding the marked improvement in the methods of milk sterilization, the continued use of canned milk and butter becomes finally, to anyone living in the Tropics, unpleasant, and the question of securing fresh dairy products is a most important one for the comfort of European residents.

The best breeds of milch cattle, like Jerseys, Guernseys, and Holsteins, when introduced into the Tropics very quickly degenerate. They are not suited to its climate and can not be easily acclimatized. They soon grow thin and sickly, cease giving large quantities of milk, and die.

In Ceylon several attempts to acclimatize them have been made, but with no success, and I am told that the dairymen who have made these trials have been obliged to return to the use of the South Indian or Madras breeds. Recently, however, the Sind cattle have come into prominence as a milch breed, and the introduction of this breed into other parts of India has been a great success. It is a remarkably vigorous race, and the cows are much better milk producers than the South Indian or Madras breed.

A visit made to the agricultural college in Colombo was very interesting in this connection. In the college herd the three breeds were represented.

The bulls of the Sind variety are great, handsome fellows, with immense humps on their shoulders, for they belong to the *Bos indicus* species. They were dark chestnut in color, with black extremities, and one could find nowhere healthier-looking animals than these Sind specimens which were some time ago imported from Karachi. The cows were sleek coated, with large udders and fine broad backs—pictures of health. The Madras animals were of that long-legged, lean type which is so common in the Oriental Tropics, and the cows had small udders and peaked backs; while the Jersey bull which had been brought down from one of the high altitude tea estates, for breeding purposes, was a sad enough sight, pale about the eyes and mouth, sway-backed, and with hind legs all out of shape, though not nearly so ill-conditioned as the pitiful looking, emaciated cows of the same breed, which were seemingly in the very last stages of consumption.

The object lesson could not have been more convincing nor the contrast between the perfect health of the Sind cattle and the mangy appearance of the European race more striking.

The statement by Mr. Drieberg, the director, that without the Sind cattle it would be impossible to make up the Ceylon dairy was quite significant.

While in Poona, India, the site of the Bombay Agricultural School, I saw more of this Sind breed of cattle and learned that although it deserved all that it was credited with in Ceylon, it has been superseded, for butter-making purposes, at least in the Bombay presidency, by the milch carabaos.

The carabao or water buffalo (*Bubalus bubalis*, Lyd.) is a well-known object in Manila, and its use as a beast of burden thoroughly understood, but, so far as I am aware, little attention has been paid to it as a milk producer.

Unthinking prejudice, which prevents us from eating many excellent things, may play the same rôle in Manila that it does in Ceylon, and forbid the employment of buffalo milk. If this is so it is a great pity, for there is a race of water buffaloes which come from Delhi, India, that gives over 30 pounds of milk per day, while the best Sind cattle give only 18, and this buffalo milk is so rich in fat that 12 to 13 pounds of it make a pound of butter, whereas 20 pounds of milk of a Sind cow are required.

These Delhi buffaloes are easier to keep, less expensive, and cleaner (having almost no hair) than ordinary cattle. They sell for about 180 rupees, or $56 gold, in Bombay, and can be bought at Dawans, the buffalo market, near Grant Road Station, but could be best secured by applying to Mr. Mollison, director-general of agriculture for India, at Poona, who could probably be prevailed upon to arrange to have good specimens picked out.

In general, the animals are priced according to the amount of milk they give, 10 rupees being added to the price for every two additional pounds of milk given per day.

Another good variety of milch buffalo is that from Gujarát, called the *Surti*. It yields only about 20 pounds of milk per day, and is sold at from $33 to $36 gold. The cost of keeping this variety per day amounts at Poona to only 16 cents gold, and it is considered the most economical race by Mr. Kelkar, the foreman in charge of the college herd. According to him, a dairy should have both buffaloes and Sind cattle. The buffaloes are better for butter production, and the cattle are superior for milk purposes, because the milk fetches a better price, being, in fact, much preferred to that of the buffaloes, which has a bluish color and a slight, though not disagreeable, odor.

Both the buffaloes from Delhi and Gujarát and the Sind cattle are well worth introducing into the Philippines. The buffaloes should be tested for butter making, though they cost more to feed than the Sind cattle, which latter will prove, however, especially useful for milk.

Breeding animals of these different races might be secured through Director Mollison, of Poona, who could arrange for their shipment to Manila through such a well-known shipping firm as Latham & Co., of Bombay.

As regards the quality of the butter made from buffaloes' milk, I can only judge from its general use in the Bombay presidency that it is in no way really objectionable, though its white color is not so attractive nor its aroma so full as that of Danish butter.

The introduction of these good milch breeds of cattle and buffaloes would add materially to the comfort of the white people in the Philippines, and deserves the serious attention of the Department of Agriculture.

AGRICULTURE IN JAPAN.

Steamship Hongkong,
En route to San Francisco,
August 22, 1902.

The most startling fact about Japan is the small area of cultivation that almost completely supplies the wants of a large population. According to statistics supplied by the Government, out of the less than 147,000 square miles in Japan proper not more than 19,000 square miles are cultivated, which means that an agricultural area one-third the size of Illinois comfortably supports some 42,000,000 people, and this means that every square mile of cultivation supports on the average about 2,200 persons.

This becomes still more interesting from the other fact that the agriculture which supports these millions is one in which animal husbandry is almost totally lacking.

To the Occidental an agriculture without farm food animals of any kind is hard to imagine, but to Orientals, who do not know the taste of dairy products nor relish the most delicate beefsteaks or mutton chops, the care of live stock seems a disagreeable and even degrading business.

No considerable herds of cattle are said to exist in the islands, and sheep, hogs, and goats are nowhere bred to any extent. A few work bulls and cows are kept in stalls, and from these the foreigners get their supply of beef, which is of very good quality. Small quantities of these animals are exported from Kobe to Manila and China. This lack of domestic animals and the resulting absence in the country of stable manure or crops grown for fodder give to the farming of Japan a peculiar feature.

That this one-sided agriculture is a mistake, the most progressive of Japanese agriculturists frankly admit. It necessitates, or at least has brought about, a rotation in many sections of the country of barley and rice. Such a rotation, and a still simpler one of rice followed by a season of fallow must have gradually decreased the fertility of the soil had not the system of collection and distribution of night soil been so extensively developed.

If instead of barley the Japanese farmer could have grown a leguminous winter fodder crop, such as the Egytian fellah has for centuries cultivated, he could have prevented, in part at least, this impoverishing process.

With no animals to feed there has naturally been no development of fodder crops in Japan, but the necessity to fertilize with seaweeds, liquid manures, and straw ashes has given the peasant an appreciation of the value of manures which is surprisingly in advance of that of Western nations.

Comparing the keen knowledge of fertilizers shown by the Japanese peasants with that of the Greek, Italian, or Spanish farmers, or even with the small farmers of our country, one appreciates how advanced they are along these lines of farming and what an enormous waste of nitrogenous materials is continually going on in Europe and America.

The peasant classes of Japan are the cleanliest personally of any in the world, and with an income which is so small that an American farmer would starve to death on it, they live happily and surround themselves with comforts which even many of our fairly well-to-do people do not possess. When compared with the peasants of any European country the Japanese live more comfortably by 50 per cent, at an actual cost of less than half what the European spends. They have learned by centuries of experience how to best utilize the vegetable products of their country. Their bamboo utensils, mud-thatched roofs, paper screen walls, cheap straw and rush mats, homemade, durable clothing, exquisite inexpensive wood and lacquer work, and multitude of pliable paper articles are some of the luxuries in which, compared with the European peasants, they are rich. This remarkable frugality and intelligent use of trifles enables the Japanese farmer to get along on an income of less than $100 gold a year, and on this to support a family of four or five persons.

The capital of these peasants is so small as a rule that a thrifty American farmer could buy out a small village of them. One hundred gold dollars would in many thousands of cases pay for all the belongings of a comfortably situated family. From the standpoint of foreign money, therefore, the Japanese farmer is a poor man, and a tax which would scarcely be felt by our landowners would be a heavy burden for him.

With the increasing tastes among all classes for better food and greater conveniences and the steady increase in population, it seems probable that the development of the agricultural resources of the country will not much more than keep pace with the increasing home demands, and that for some time to come, at least, Japan's exports of the products of the farm will be very limited. The commodity of which she has an abundance, however, is human energy, and it is a pitiful sight to an American to see the wastage of manual labor that is expended in the rice fields of this country. Small, irregular fields owned by conservative families make the use of labor-saving machinery practically impossible, even if the bitter conservatism of the laborers would permit machines to be used which would take away the only occupation they have.

A wrong impression of this interesting agriculture would be given were one to fail to mention the efforts which the General Government and the provincial governments are making to improve it. In fact, no country except the United States has made such rapid progress as Japan in the establishment of institutes of agricultural research. She has copied our system and adapted it to her different conditions. Within the last five or six years there have been established in the provinces nine well-equipped experiment stations, which compare favorably in their corps of specialists with those which were started in America only a few years ago. One central station at Tokyo controls these branch stations, or at least has supervision over them, and disburses every year $90,000 gold to the party of experts, twenty-six assistants, over seventy employees, and a hundred or so laborers, who carry on this work. In addition to these nine branch stations, there are a large number of municipal and prefectural stations scattered through the country, and even one private station supported by a marquis, formerly one of the Daimios, or feudal lords. Several of these institutes of research were visited and the excellence of their equipment was a surprise. They were, as a rule, neat, wooden laboratories, supplied with good apparatus and small working libraries, and were surrounded by white-staked experiment plots, or provided with glass houses for experiments with chemical fertilizers or breeding cases for noxious insects.

The directors and assistants are many of them industrious, enthusiastic men, who enjoy nothing so well as the use of their microscopes or to study the habits of injurious insects. They delineate with extraordinary skill the characters of the parasites, either fungous or insect.

Chemical fertilizers monopolize the largest share of the attention of these stations. The large number of factories of rape-seed cake, etc., necessitates a correspondingly large number of analyses by the chemists, and as many of the stations are directed by chemists who have passed through the agricultural college of Komaba, where Professor Loew (formerly in the United States Department of Agriculture) is actively engaged in teaching, it is natural that the tendency of the lines of research should be chemical.

No provision has been made for any local control over these stations by practical farmers, such as compose our boards of control in America. As a result of this separation from the practical farmer there is naturally a great lack of appreciation of the work done by the stations. This tendency toward too close laboratory work and too little practical experimentation on the farm may be explained by the fondness of Japanese students for quiet contemplation. Microscopic and artistic descriptive work appeals to them more than practical field experiments. This, it is said, is a deplorable feature of Japanese medical education also, the young doctors mastering thoroughly the theory of medicine, but rarely learning it as an art.

This increased interest in scientific plant cultivation in Japan is unmistakable, and with the introduction of compulsory school education several years ago and the formation in every district of agricultural societies, the quick dissemination and assimilation of new facts relating to the different plant industries are practically assured. Bulletins, illustrated with photographs and charts for the instruction of the farmers, are being printed by the thousand, and in the middle schools the sciences related to agriculture are taught much as they are in America. Even in many of the primary schools, gardens of named plants for the instruction of the children are to be found. These changes would come slowly with any other race than one which, like the Japanese, is saturated with a love for plants. The lowest-born cooly knows more about the care of a potted plant than 90 per cent of the educated classes of America or Europe. They are a race of plant artists, and care for fancy varieties of flowers as other nations do for pet animals. Yet it is a surprising fact that notwithstanding this love for plant life the Japanese are not great plant breeders, and artificial hybridization is a process not well understood by them.

One of the effects of Western civilization upon the country will be the gradual introduction of more meat into the daily diet of the people. Already the number of butcher shops in all of the principal cities is increasing, and the number of animals slaughtered is three or four times what it was ten years ago. The growing taste of the Japanese for foreign food is recognized as a fact by many old resident Americans. Whether the Government will succeed in making stock raising an important industry in the country is a debatable question.

The tea industry has received a new stimulus through the removal of the duty in our country, but the president of the largest association of tea growers in Japan stated that it will not lead to any considerable increase in the tea-growing area. At a recent meeting of the association a resolution was passed having for its object the improvement of the quality of the exported article rather than the increase of the quantity. The exporters say that the change in the tariff has had the effect of raising the price at which the Japanese producers sell to them.

Within the last two or three years, machinery has been introduced successfully into a number of tea-firing factories, and one of these factories where 10 men now do the work which it required 100 to do before was visited. The rolling of the fresh leaf is still done by hand, however, although the central experiment station experts are working upon several new inventions along this line which they hope to perfect. At present they do about the same class of rolling that the Jackson rollers do in Ceylon and India.

People who have studied the question think that Japan as an agricultural exporting nation will hardly become important for many years. There is, however, a possibility that the industries of canning and drying fruits may be given an impetus by the Government in the near future, and that Japanese fruit growers will ultimately export large quantities of cheap canned goods of this character to China and India. Japanese canned peaches which sell at 12½ cents a quart are not at all bad, and it is said that 17,000 of these cans were put up last year by one establishment.

That the Japanese are reaching out after Chinese trade seems to be an acknowledged fact, and with their greater facilities for learning the language they should be able to introduce the Western products which they manufacture into parts of China now inaccessible to Europeans and Americans, and will very probably play an important rôle in the opening up of China.

PLATES.

DESCRIPTION OF PLATES.

PLATE I. Fig. 1.—A modern Spanish fanning mill. Fig. 2.—A modern Spanish thrashing machine. Fig. 3.—A modern Spanish subsoil plow.

II. Fig. 1.—Homes of the natives on the bank of the Tigris River. Fig. 2.—Scene in a date garden, Bagdad.

III. Fig. 1.—Sind cow from Karachi, India. This cow gives 18 pounds of milk, or less than 1 pound of butter, per day. It costs in Karachi $19 to $22. Fig. 2.—Delhi carabao from Delhi, India. This animal has given over 30 pounds of milk per day. Cost, 180 rupees, or over $50. Fig. 3.—Rump view of Delhi carabao, showing large udder.

IV. Fig. 1.—Surti milch carabao from Gujarát, India. This animal yields 20 pounds of milk, or 1½ pounds of butter, per day, at a cost of 16 cents a day for feed. It is considered one of the most economical of all the milch breeds of buffalo. It costs in Bombay $33 to $36. (Photograph taken on experiment farm at Poona, India.) Fig. 2.—Rump view of Surti milch carabao (same animal as in fig. 1), showing udder.

V. Fig. 1.—Interior view of laboratory of Professor Hirase, at Hikone, showing the equipment of a botanical laboratory in a middle school in Japan. Fig. 2.—Exterior view of the experiment station buildings at Shizuoka, Japan, one of many such experiment stations in the country. Fig. 3.—The plum market of Ikeda, showing the auctioning off of freshly picked fruit at this center of plum culture in Japan.

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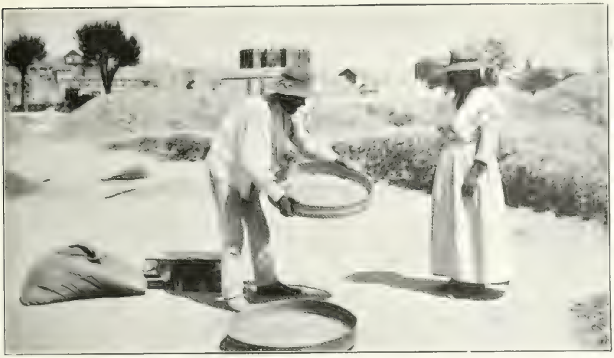

FIG. 1.—A MODERN SPANISH FANNING MILL.

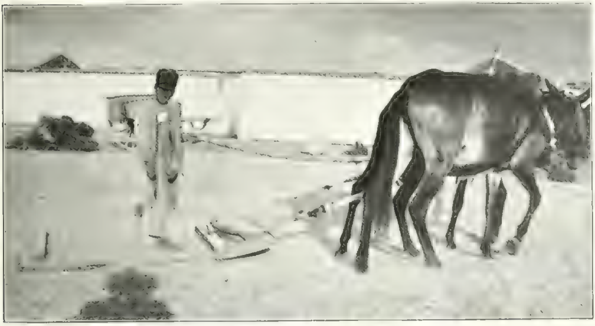

FIG. 2.—A MODERN SPANISH THRASHING MACHINE.

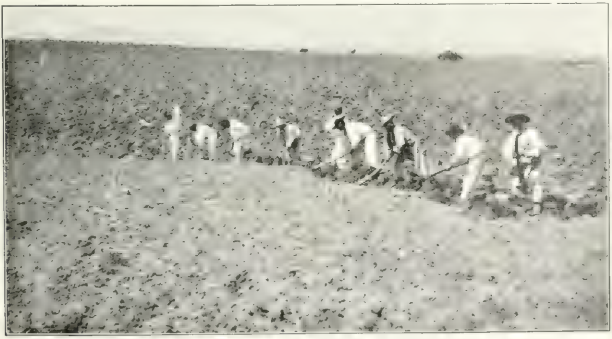

FIG. 3.—A MODERN SPANISH SUBSOIL PLOW.

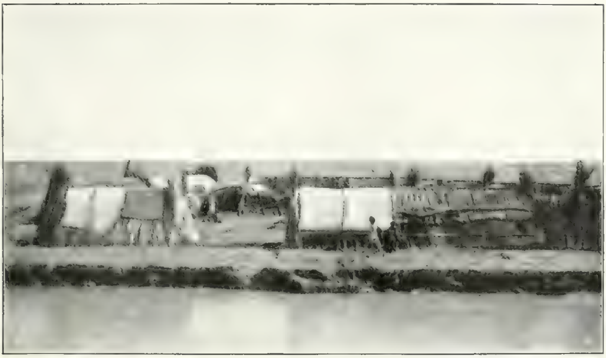

FIG. 1.—HOMES OF THE NATIVES ON THE BANK OF THE TIGRIS RIVER

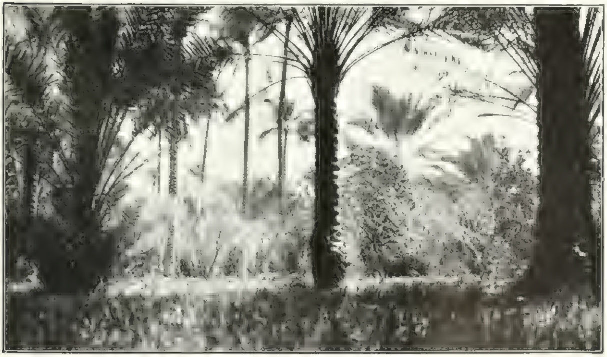

FIG. 2. SCENE IN A DATE GARDEN, BAGDAD

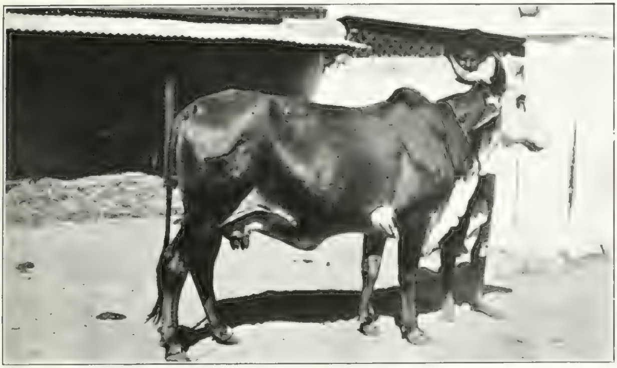

FIG. 1.—SIND COW FROM KARACHI, INDIA.

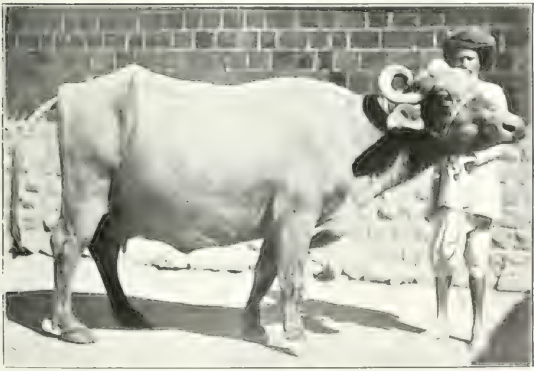

FIG. 2.—DELHI CARABAO FROM DELHI, INDIA.

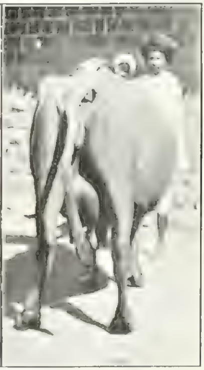

FIG. 3.—RUMP VIEW OF DELHI CARABAO.

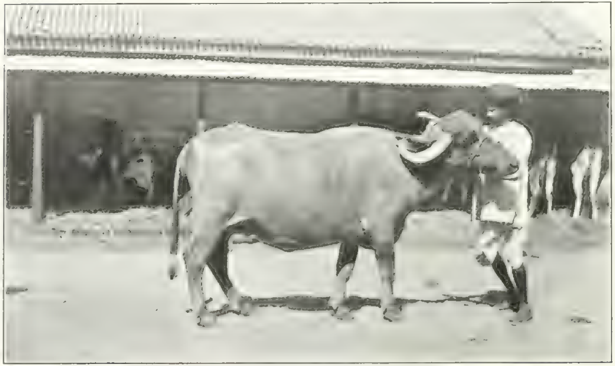

FIG. 1.—SURTI MILCH CARABAO FROM GUJARÁT, INDIA.

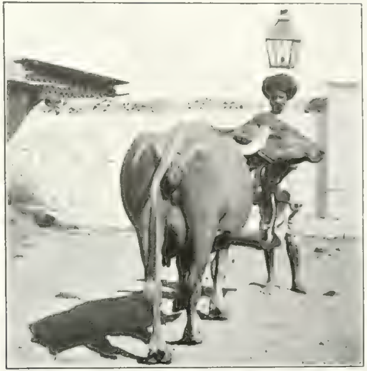

FIG 2.—RUMP VIEW OF SURTI MILCH CARABAO.

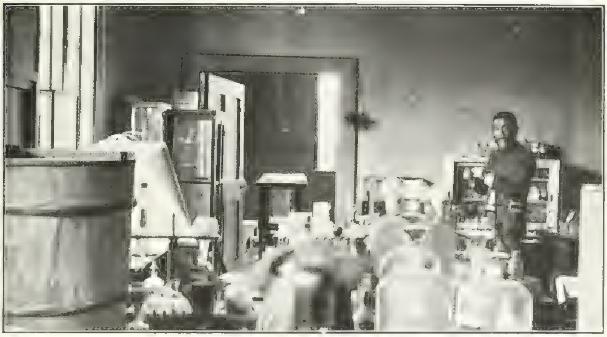

FIG. 1.—BOTANICAL LABORATORY, HIKONE, JAPAN

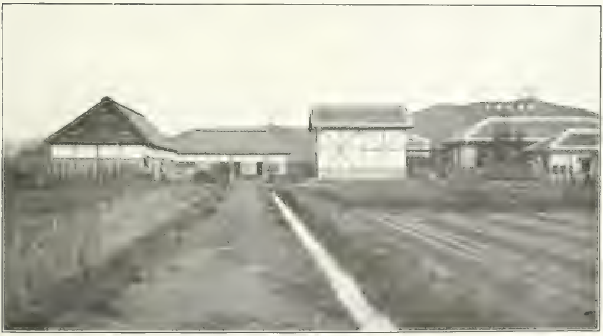

FIG. 2.—EXPERIMENT STATION BUILDINGS, SHIZUOKA, JAPAN.

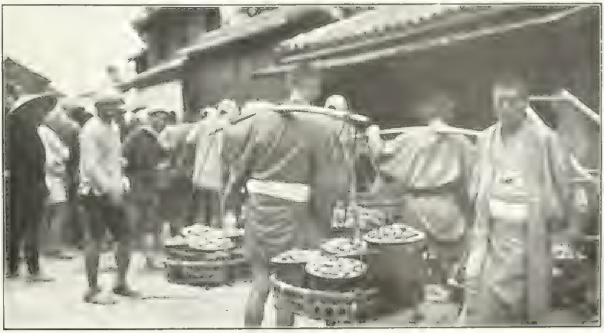

FIG. 3.—THE PLUM MARKET, IKEDA, JAPAN.

U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN No. 28.

B. T. GALLOWAY, Chief of Bureau.

THE MANGO IN PORTO RICO.

BY

G. N. COLLINS,

Assistant Botanist in Tropical Agriculture,

BOTANICAL INVESTIGATIONS AND EXPERIMENTS.

Issued January 17, 1903.

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1903.

LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief,
Washington, D. C., September 27, 1902.

Sir: I have the honor to transmit herewith a paper on The Mango in Porto Rico, by G. N. Collins, Assistant Botanist in Tropical Agriculture, and respectfully recommend that it be published as Bulletin No. 28 of the series of this Bureau. The paper has been submitted for publication by the Acting Botanist in Charge of Botanical Investigations and Experiments.

Respectfully,

B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

PREFACE.

The mango is a fruit highly esteemed throughout the Tropics, in most places outranking in popularity both the banana and the orange. European residents in the Tropics almost universally acquire a fondness for the mango, and in England the demand for it is steadily increasing, it having been found possible to make importations from India, notwithstanding the immense distance. The mango is as yet little known in the United States, having been represented in our markets only by fruit of inferior varieties. These give no suggestion of the qualities of the better sorts and tend rather to discourage than to increase the demand. If an effort similar to that which brought the banana into favor in the United States could place an adequate supply of good mangoes before the public, there is no apparent reason why this new tropical fruit should not repeat the history of its now popular predecessor.

Porto Rico is favorably located for the growth of the mango, the south side of the island especially possessing the right climatic conditions. The trees are very prolific and remarkably free from diseases. High-grade varieties are already growing in different parts of the West Indies, Florida, Central America, and Mexico, and their introduction into Porto Rico should be attended with little difficulty.

This bulletin, written by Mr. G. N. Collins, under the direction of Mr. O. F. Cook, botanist in charge of investigations in tropical agriculture, and based largely upon observations made by the author while engaged in a botanical exploration in Porto Rico in cooperation with the recently established Porto Rico Agricultural Experiment Station, discusses the possibilities and requirements of the mango there, and it is hoped that it will help to establish the growing of mangoes as one of the profitable industries of the island.

LYSTER H. DEWEY,
Acting Botanist.

OFFICE OF BOTANICAL INVESTIGATIONS AND EXPERIMENTS,
Washington, D. C., September 18, 1902.

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THE MANGO IN PORTO RICO.

INTRODUCTION.

The mango is considered by many to be the finest of tropical fruits, though on this point there is much diversity of opinion, occasioned to a great extent by difference in taste, but still more by the great diversity in the fruit itself, which varies enormously in different localities, there being large areas where the mango is common and where not a single good variety is to be had. Persons forming their opinion of the fruit in such localities usually indorse the proverbial statement that the mango is "a mass of tow saturated with turpentine." On the other hand, those acquainted with the fruit at its best are almost unanimously enthusiastic in their praise. Elphinstone, the historian of India, says:

> The mango is the best fruit of India, at once rich and delicate, and all other fruits are comparatively insipid beside its intensity of taste. There is something in it that is nothing less than voluptuous.

A taste for mangoes, at least for the varieties existing in Porto Rico, has in most people to be cultivated; but once acquired, it is like a taste for olives, and becomes almost a craving. The milder flavored varieties, in which no taste of turpentine is to be detected, are usually enjoyed even by the novice, but after one becomes familiar with the fruit a slight taste of turpentine ceases to be disagreeable. The fiber, however, that exists in the poorer varieties is an unmitigated evil, and renders the eating of a mango a serious operation, to which one must devote his entire attention and may need to conclude with a bath. In the varieties where the fiber is the worst, one can not even have recourse to slicing the meat from the seed, as in that case the cut ends of the fibers are stiff enough to irritate the tongue.

Good mangoes are produced in America, but as yet in such small quantity that few persons have had an opportunity to taste any but inferior fruit. Sample lots of the more common and poorer varieties are frequently shipped to northern markets, and have doubtless done much to hinder the growth of the trade. A first impression is very lasting, and first impressions of the mango based on such fruit are likely to be anything but favorable. As an example, mangoes are frequently to be found in the Washington market, but we have never seen one that could be called good, even in comparison with the Porto Rican fruit.

This impression formed in the minds of the novelty-loving public will doubtless be difficult to dispel; but if really good mangoes could be placed in the markets their increase in popular favor would be certain and the growing of mangoes might become a profitable pursuit.

In spite of the fact that in all mango-producing countries the natives consider the fruit wholesome and perfectly safe, prejudice against it exists among some military officials and others, who condemn the fruit as positively dangerous. During the Spanish war this prejudice was so strong that the soldiers in Porto Rico were prohibited from eating the mango, and many beautiful trees were cut down. This unjust prejudice probably arose from eating the fruit when unripe, in which state, like most other fruits, it is unwholesome. Soldiers, hungry for fresh fruit and quite unfamiliar with the mango, might easily mistake the green for the ripe, especially as in Porto Rico some of the varieties when ripe still remain green in color. All varieties become mellow when ripe, however, and if eaten in that condition can not but be wholesome. It is commonly believed in Porto Rico that the mango and rum should never be partaken at the same time. This again probably applies to the green fruit.

In some parts of India the natives at one season of the year live almost exclusively on mangoes, apparently without harm; and among the writers consulted all commend it as extremely wholesome except Sir George Birdwood, who states that the fruit is apt to act injuriously on the kidneys. On the other hand, the mango is considered by most authorities to have medicinal properties decidedly beneficial. An extract from the Pharmacographia Indica, in Watt's Dictionary, describes the fruit as "invigorating and refreshing, fattening, and slightly laxative and diuretic."

DESCRIPTION.

The mango tree (*Mangifera indica*) varies in height, according to the variety, from little more than a bush to a tree 50 to 70 feet high, with a trunk 6 to 10 feet high and 2 feet or more in diameter. The leaves are lanceolate, about 1 foot in length, tapering gradually to a narrow point, with a smooth, shining surface. The young leaves are first pink, then red before turning green. The top is rounded and very dense. (See Pls. I, II, III.) The bark is gray and smooth. The flowers are small, reddish-white, or yellowish, borne in large upright racemes. The fruit varies greatly, according to the variety. In some kinds it is not more than 2 or 3 inches in greatest diameter, while others are three or four times that size, some weighing as much as 4 pounds. In form they vary from nearly spherical to long and narrow like a cucumber, straight or crooked. The most common varieties are usually from 2 to 4 inches in length, more or less kidney-shaped, with the "nak," or stigmatic point, more or less produced. In color they may be green, yellow, or red. In composition the difference is no less pronounced. In some the seed is large (see Pl. IV, fig 2), and the thin flesh between it and the skin consists almost entirely of fiber attached to the seed, while in others the seed is small, and in some so nearly aborted that it is easily cut with a knife. In the best varieties the fiber is almost entirely wanting and the entire fruit consists of a mass of juicy, usually orange-colored pulp. This in some varieties is so firm that it may be sliced with a knife; in others it is soft enough to be eaten with a spoon.

The characters usually utilized in distinguishing varieties of the fruit are the size, color, and form; the extent of the depression at the stem; the location and prominence of the "nak" or stigmatic point; the color and thickness of the flesh and the amount of fiber contained; the presence or absence of a turpentine flavor. The seeds of different varieties are also very distinct. A glance at Pl. V will give some idea of the diversity, and although these characters are quite as constant as those more commonly used, they seem never to have been utilized in the description of varieties.

The Anacardiaceae, to which the mango belongs, include also the turpentine tree (*Pistăcia terebinthus*), the original source of turpentine, and it seems not at all unlikely that the characteristic odor of the mango is in reality due to the presence of turpentine or some closely allied substance. Exudations of a transparent resinous substance similar to that of the turpentine tree are frequently to be noticed in the mango.

ORIGIN.

The mango (*Mangifera indica*) is said by De Candolle to be native in South Asia or the Malay Archipelago, and recent authors report it as wild in the forests of Ceylon and the regions at the base of the Himalayas, especially toward the east, at an altitude of from 1,000 to 2,000 feet. The species has been so long under cultivation that it would be extremely difficult to locate definitely the place or places where it was actually domesticated. The general region is, however, without doubt that given above. Of the 37 species of Mangifera enumerated in Index Kewensis, all are from the Indo-Malayan region except two—one, described by Oliver, from West Africa, and one, by M. Dessousseaux, from the island of Mauritius. Engler and Prantl describe the genus as containing 27 species from the East Indies and the Malay Archipelago. Its culture is very ancient, as shown by references in Sanskrit mythology and ancient Hindu folklore.

For so old and so useful a plant, its distribution was comparatively limited until historic times. To the west, it had not passed the Red Sea, being unknown in Egypt, while to the east it had apparently not reached the islands of the Pacific. According to Rumphius (1750) it was introduced into some of the islands of the Malay Archipelago within the memory of living men, though the variety of native names would argue an earlier introduction. The species is not well adapted for distribution by natural agencies, and man has probably been chiefly responsible for its dissemination.

In the New World it seems to have been first introduced into Brazil, although it is not known at what date. The earliest record of its introduction into the West Indies appears in Hughes's Natural History of Barbados, 1750, where it states: "This tree or its seed was recently brought from Rio Janiero and grows only at the Guiney plantation." The date of this importation is more definitely placed at about 1742 or 1743 by letters published in Transactions of the Society for the Encouragement of Arts, etc., 1786, page 217. In 1782 Captain Marshall, of Lord Rodney's squadron, captured a French vessel, bound from the island of Réunion or Mauritius to Santo Domingo, that had on board many valuable plants, among which was the mango, said to have been in the form of grafted stock. These were planted in the botanic gardens of Mr. Hinton East at Gordon Town, Jamaica. Two kinds—one labeled No. 11 and the other No. 32—have since been known by these designations, No. 11 being one of the most popular varieties in Jamaica at the present time.

The mango is now a common fruit throughout the Tropics of the world. It has been developed to the highest state of perfection in its home in India, where the number of well-marked varieties is enormous. Mr. Maries, of Durbhungah, has collected over 500 varieties, 100 of which he characterizes as good. Thirty-four of these varieties he describes in Watt's Dictionary of Economic Products of India. Ceylon is also famous for its mangoes. Both the east and the west coasts of Africa have several good varieties. In Australia the culture is fast increasing, and it bids fair to become one of the most popular fruits. One very fine variety is said to exist in the island of St. Helena. The mango is the most highly prized fruit of Guam, where there is a fine seedling variety. Its cultivation in that island is, however, not a success, owing probably to the thin soil, which affords such a shallow footing that the hurricanes uproot the trees in all exposed localities. In the Hawaiian Islands, Mr. William C. Stubbs[a] reports: "The mango is receiving perhaps more attention just now than any other fruit. As many as twelve or fifteen varieties have already been introduced. It is a delicious fruit, and decidedly ornamental in any ground." In the New World, Trinidad and Jamaica have the largest collections, although the drier regions of Central America and Mexico may be found to offer better seedling varieties.

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[a] Bul. No. 95, Office of Experiment Stations, U. S. Dept. of Agriculture, Report on the Agricultural Resources and Capabilities of Hawaii, p. 40.

In spite of the many discouraging frosts that have visited Florida, planters of that State are actively engaged in propagating good varieties by budding, grafting, and inarching, and, if visited with no further misfortune, will in a few years produce considerable quantities of high-grade fruit.

CULTURE.

REQUIREMENTS.

The mango will grow in a variety of conditions, and it seems to have little preference as to soil, the most important requirement being a deep soil that is well drained. As to climate, it is much more exacting, and the fact that the tree may thrive well in a given locality and yet fail to produce fruit should be kept always in mind. It may be considered as proven that the mango will be prolific only in regions subjected to a considerable dry season. On the moist north side of Porto Rico the trees grow luxuriantly, but they are not nearly so prolific nor is the fruit of such good quality as on the dry south side, and in the very dry region about Yauco and at Cabo Rojo the fruit seemed at its best, while its abundance was attested by the fact that fine fruit was selling as low as 12 for a cent. In Guatemala and Mexico the mango was found at its best only in regions where severe dry seasons prevailed. This position is amply supported by reports of the mango in other localities.

The moist conditions that prevail at the Botanic Gardens of Trinidad are reported by Mr. Hart[a] to be very unfavorable to the production of mangoes, a decided improvement being noticed in particularly dry seasons. This was also found to be the case in Jamaica, reports from different parts of the island[b] all agreeing that the mango fruits but sparingly in moist localities, and in such is much more prolific in dry seasons.

Rains at the time of flowering seem to be especially injurious. It has been suggested by Mr. Hart and others that the moist weather interferes with pollination. If this is accomplished by insects the damp weather may easily affect their operations. Information on this point seems entirely wanting and investigation might be well repaid. In cases where the trees do not flower the explanation is probably to be found in the fact that the mango, like so many other plants, needs some check to its growth to induce the formation of blossoms. Where the dry season is lacking, artificial means of checking the growth are often resorted to, and old trees that have never borne fruit are sometimes made to produce enormous crops.

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[a] Bul. Royal Bot. Gardens, Trinidad, July, 1899, Vol. III, pp. 190–194.

[b] Jamaica Bul., November and December, 1901, Vol. VIII, pp. 161–178.

The tree is seldom seen at high altitudes, but this may also be due to the fact that high altitudes are often moist. At Senahu, Alta Vera Paz, Guatemala, trees were seen growing at an altitude of between 2,000 and 3,000 feet. They looked strong and healthy but were without signs of fruit or flowers, and it was said that these trees had never been known to produce fruit.

METHODS OF PROPAGATION.

SEED.

The mango grows readily from seed, and this is the only method of propagation practiced in Porto Rico. For transporting the seed long distances it is, of course, necessary to remove the pulp, and the best results have been obtained with cleaned seeds, dried on the outside and packed so as to conserve the moisture without molding. Packed in this way, several successful importations of seed have been made from the East Indies to Florida.

The ease and rapidity with which mangoes can be propagated by means of seed are decided advantages, but the results are very uncertain, and very few of the really desirable varieties can be maintained by this method. There are a few good varieties in different parts of the world the seedlings of which appear to produce fruit identical with the parent.

Much could doubtless be done to improve the mango in Porto Rico by the growth of seedlings from selected fruit, and really good varieties might be originated. Cross fertilization of the flowers might produce new varieties and increase the chances of producing good forms. On the other hand, if the mango follows the analogy of other fruits, it might be worth while to try the experiment of self-pollinating some of the best varieties, with the idea that the reproductive fertility would be thus impaired and the size of the seed reduced.

A more expeditious method of reducing the size of the seed might be to cross-fertilize with the pollen of some variety or perhaps species so distantly related that partially or completely sterile hybrids would be secured. Breeding experiments of all kinds require, however, so much time that for practical purposes the introduction of superior varieties existing in other countries is certainly the first step to be taken.

INARCHING.

This, and methods to be described later, provide means of propagating good varieties, so that the fruit of the new plant will be identical, or nearly so, with that of the parent. No greater variation need be expected than that occurring on a single tree.

In India and wherever the cultivation of the mango is carried on to any great extent, inarching is by far the most common method of propagating. An article in the Sugar Journal and Tropical Cultivator describes the process as follows:

> The best method of propagating good varieties of mangoes is by means of inarching, which is a very simple process. It is performed usually between a large tree of superior variety growing in the ground and a seedling growing in a pot—small, cheap flowerpots about 8 or 9 inches deep and 6 inches diameter do well for the purpose. The soil should be good potting soil, with a fair proportion of manure. A single large mango stone should be planted in each pot. The seedlings are ready for inarching, if well grown, in ten months or so; if not well grown, they should be older. Two-year-old seedlings are very successfully inarched. The stem of the seedling should in each be fairly thick, with the wood fairly developed—near the root the stem will be somewhat thicker than an ordinary workingman's smallest finger. Any number of seedlings in pots can be inarched in one tree by erecting a stage [for their support] under the lower branches. The stem of the branch to be inarched should be about the same thickness as the stem of the seedling, and like the seedling, should be fairly developed wood. The juncture where the inarching is performed should be about 6 or 8 inches from the root of the seedling and about a foot or so from the growing point of the branch, unless the branch is making new vigorous growth, in which case the distance will be more. A straight, well-shaped branch should be selected, so that the future grafted tree will be well proportioned. A slice of wood and bark should be cut from the seedlings and from the branch, so that the inner bark of both can be made to touch accurately; the two wounded surfaces are bound securely with tape or bast fiber, and grafting clay applied to keep out air. The juncture of branch and seedling should extend for a length of about 3 inches, but at no point should the wound in either be deep; the slices should in fact be of almost uniform thickness throughout and not thick. Tenaceous clay should not be used to cover the inarch; it soon cracks and admits air. One part of fresh cattle dung, mixed with two parts of good soil, kneaded together with a little water, serves the purpose excellently. Inarching can be done in India at any season, but it is most successful when the trees are in active growth. It takes some time (several months) before the inarched juncture is perfectly joined by the new wood and bark cells. Meantime the seedlings in the pots must be carefully and regularly watered. When the juncture is complete the leading shoot of the seedling should be removed immediately above the inarch juncture and some days afterwards the branch of the tree may be severed immediately below the juncture.
>
> Trees for inarching should be in a sheltered situation, because if swayed much by the wind the pots or the platform are disturbed from their position.
>
> In planting out young grafts the pots should be broken if the young plant can not be removed without disturbing the earth on the roots. If the earth on the roots is much disturbed the plant will almost certainly die. They should be planted with plenty of manure in pits 3 feet deep and wide.[a]

Mr. Lewis A. Bernay, in "Cultural Industries for Queensland," recommends that the seedlings be inarched when only three weeks old and 6 or 8 inches high. They can then be taken from the pots, the roots wrapped in grass, and the whole tied to the branch which is to be grafted. He recommends that the grafting be done early in the rainy season, and states that the grafts may be severed from the parent within a month or as soon as thirteen days. Inarched mangoes should come into bearing in from three to five years after planting.

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[a] The Journal of the Jamaica Agricultural Society, May, 1898, pp. 168, 169.

Inarched stock in Wardian cases can be shipped long distances, and importations into Florida have shown that if properly handled a fair percentage of the plants may be expected to live.

Other forms of grafting are also used to some extent to propagate mangoes. Grafting is, however, difficult in the case of the mango, and can only be practiced by experienced hands.

LAYERING.

Propagation by layering, a method used to some extent where early fruiting trees are desired, is described in Firminger's Manual of Gardening (p. 86), as follows:

> Select a branch of ripened wood of the plant to be layered that will bear being bent down to the earth without breaking. Cut the branch half through with a sharp knife just under one of the leaf buds toward its extremity, and then pass the knife upward, so as to slit the branch about an inch or two up. The slit piece, with the leaf bud at its extremity, called the "tongue," should be kept open by inserting a small piece of tile. Remove the earth to the depth of 2 or 3 inches from, or place a flowerpot over, the spot just where the tongue falls on the branch being bent down; then carefully bend the tongued part of the branch into the earth or into the flower pot, secure it in that position by a peg, and cover it over with earth, which should be pressed down and watered.

Chinese layering, a variation of this method, called gootee in India, where it is used to some extent, is described by Mr. Masters[a] of the Calcutta Botanical Gardens as follows:

> Select a firm, healthy branch, the wood of which is well ripened, and immediately under a leaf bud take off a small ring of bark about 1 inch wide. Scrape the woody part well, so that no bark remains. Apply a ball of well-tempered clay; bind it on securely with a tow or other soft bandage; make it fast to a stake if necessary; hang a small pot, having a hole in the bottom, just over the gootee and supply it with water daily. In a few months you obtain a fine, well-rooted plant.
>
> As the fibers are emitted from the buds that are above the wound they will descend into the ball of earth and form roots. As soon as they are seen protruding themselves through the bandage, the branch may be cut off from the parent tree, and planted where it is intended it should remain. This appears to be the most expeditious method of obtaining strong, well-rooted plants, and, at the same time, is a sure method of procuring duplicates of any desirable variety.

An ingenious method for watering the gootee is described by Firminger, as follows:

> A piece of rope has a knot tied at one end of it, the other end is passed within the pot and drawn through the hole at its bottom until the knot is brought down to fall upon and close up the hole. The rope, thus secured by its knotted end within the pot, is carried on at full stretch and coiled around the gootee. By this means the water, when poured into the pot, oozes slowly out, trickles down the rope and along the coil, and so distributes itself along the whole gootee.

Trees started by layering or gootee are said to be prolific, but to bear small fruit. They are also thought to be short lived. These objections are so great that these methods are seldom employed.

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[a] Firminger's Manual of Gardening, pp. 87, 88.

PATCH BUDDING.

The budding of mangoes was formerly thought to be extremely difficult, but planters in Florida have found it one of the best methods of propagation, and use it very extensively on stocks that are to remain in place. For nursery stock that is to be transplanted inarching is still considered the most satisfactory. Budding has lately been tried in India, but has not as yet proved successful.

What appears to be an entirely new method of budding is described by Mr. Knight in the Queensland Agricultural Journal for July–September, 1900 (p. 256), under the name of bark grafting. If all that is claimed for it is true, it would seem to put an entirely new aspect on the propagation of improved varieties, making transportation of scions an easy matter and their propagation so simple and sure that it can be undertaken by persons having no special training or experience. The possibilities are at least sufficient to warrant thorough experiments. Mr. Knight says:

> After twelve years' close observation and a large number of experiments made on the mango tree, the conclusion that I have arrived at is that no tree is simpler to graft.
>
> The work can be successfully done by anyone and at any time, whether the sap is active or dormant. The buds are certainly not so quick in coming when the sap is down, but they make up for any delay when once started.
>
> Still it can not be said that grafting, when the sap is down, is the best time for the operation. On the contrary, the first three months in the year have proved to be preferable. All the remarks in this article apply to one process only; that is, the use of bark without any wood adhering to it. Up to date the best material for tying on the grafts is ordinary candle cotton, procurable at the ironmongers, and generally sold in 1-pound balls. The grafts are simple pieces or bark without any growth whatever on them. Of course there must be dormant buds or eyes on them. The pieces of bark may vary in length and width according to the size of trunk or limb on which they are intended to be engrafted.

The plates accompanying this article show grafts measuring 2¼ inches long by five-sevenths of an inch wide for the smallest piece, and 3¼ inches by 1¾ inches wide for the largest size. Mr. Knight further states:

> The most convenient size to use is a piece about twice the length of the width, and if taken off where rings exist, so that the ring is across the center of the section, there will be two or three latent buds near the ring. The rings on the trunk and limbs denote the exact number of growths and rests the tree has made. At the point of every new growth, while resting, there is a whorl of leaves and at the base of every leaf there is a bud which is capable of becoming a tree, and whether it is used for grafting during its infancy or ten years afterwards it will develop with proper treatment. The youngest bark used on the tree shown on Pl. 11 (1) was 4 years old and the oldest section 9 years old when transplanted. The older the bark the easier it is to remove, and it is much handier to trim into shape. First cut out the section for transplanting, and, should the edges be bruised and torn, cut them away to sound bark. Now press the piece firmly onto the spot where it is intended to grow and make a clean cut all round. Next take out the bark inside the mark and put the prepared section in its place. Do not make it fit so tightly that it has to be

squeezed in, but make it a nice fit. Now bind it with the candle cotton, with just sufficient pressure to make it touch its new parent. Avoid, if possible, binding immediately over the buds. The old notion that all air must be excluded to effect a union is a delusion as far as grafting the mango is concerned. There is no necessity for clay, grafting wax, or any other nasty stuff to insure a good union, but just the candle cotton. Now it may be that a section of bark has been prepared for transplanting which is much thicker than the piece taken out. Well, never mind; tie it on, and it will grow, although it is not a comfortable fit. Should the weather be hot and dry when the grafting is being done the top may be left on the tree for shade, but it must be thoroughly ring-barked 6 or 8 inches above the graft. In two or three weeks cut the top off at the spot where it was ring-barked, and if the buds on the graft have started into growth remove the binding.

When the young shoots which have sprung from the grafts have ripened, the old wood projecting beyond the graft should be sawn off close to the base of the new growth. As the new wood continues to grow it will cover up the entire end where it was sawn off, making very neat work of it. In the mango a term "ripened" shoot applies when the leaves and bark of the latter have taken their full green color (chlorophyll), or when the shoot has rested and is ready to continue its growth.

In a matured growth, the green coloring matter has been succeeded by a brown color which varies considerably with age.

Accompanying the above article were photographs showing: (1) A tree with its entire top cut off and fourteen different varieties of mango grafted on it, all of which were growing; in less than two months from the time of grafting the new growth in some cases measured 7 inches. (2) A grafted mango tree where the grafts had made a growth of 3 feet 6 inches in twelve months, with no cultivation. Mr. Knight adds that experiments have proven beyond a doubt that "sections of the mango tree will keep good for grafting purposes from three to six months' time according to variety and the constitution of the tree from which they are obtained." Such mature bark with its dormant buds would probably be much less subject to injury and decay during the vicissitudes of the voyage to the West Indies than would the tender shoots usually employed as cuttings, and as no such time as the above is necessary for the journey from India to the West Indies, it would seem that the introduction of the best varieties into Porto Rico might now be a comparatively simple matter.

Mr. G. W. Oliver,[a] of the United States Department of Agriculture, has recently reported excellent results with a method called by the preferable name "patch budding," similar to that described by Mr. Knight, but originated independently. Mr. Oliver's directions are as follows:

The method I wish to call attention to must be performed under certain conditions, the first and most important of which is that the stock must be in active growth. The best time is when the new leaves are not far enough developed to show the bright green color. The bark is then most easily removed. Choose the thick part of the stem only a few inches above the surface of the ground; cut out a rectangular piece of bark about 1½ inches in length, and from the variety to be propagated cut a similar piece with a bud in the center, not, however, from new wood, but from that which is at least 2 years old and which has lost its green color and assumed the grayish brown tint. Fit the section of bark, with bud attached, into the space formed by the removal of the bark from the stock. If this piece of bark removed from the stock has a bud in the central part, the wood exposed to view will fit better with the section of bark to be applied. When the section has been put in place, with a small brush apply a light coating of liquid grafting wax in which there is a large quantity of resin, to the cut parts, and immediately tie firmly with thick pieces of raffia; then an 8-inch wide strip of strong wrapping paper wound round and round the stem a few inches above the bud, and tied above with a cord, completes the operation for the time being.

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[a] "The Propagation of the Mango," in The Florists' Exchange, New York, Apr. 19, 1902, p. 461.

If good material is selected and the operation carefully carried out at the proper time, there is no reason why a high percentage of successful unions should not be secured.

It is said that in Martinique[a] the mango has been successfully grafted on the cashew tree (*Anacardium occidentale*), and it is further stated that seedling mangoes so grafted produce fruit doubled in size, free from fiber, and with the seed so reduced that it is frequently without the power to germinate. The fruit although melting and very juicy is said to be without flavor. These results, as reported, are so radically opposed to those usually obtained from similar experiments that they are not likely to be generally accepted until verified.

CULTIVATION.

The culture of the mango in localities to which it is suited is largely a question of the best method of propagation. Once established the tree needs little care.

Whether mangoes are planted directly in the field or started in pots and transplanted, it is recommended that the holes be prepared some time in advance, and, if possible, that a layer of rich soil, mixed with bones, be placed at the bottom. Manuring in the early stages, though often retarding the production of fruit, makes strong, vigorous trees. Twenty to 30 feet is recommended as a good planting distance, though this should doubtless be modified according to the variety, as some kinds produce much larger trees than others. For the varieties already in Porto Rico this distance should probably be increased to 40 or 50 feet. The better grafted varieties usually make much smaller trees, and with these the distance might be reduced to 15 feet or even less. If subsequent manuring is practiced, the fertilizer should be applied after the fruiting season, and at the same time the ground around the trees should be stirred.

In parts of India the young trees are shaded for a time until they are large enough to stand the sun, and bananas are recommended to provide the desired protection. In Porto Rico this seems hardly necessary, except perhaps in some of the very dry localities on the south side.

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[a] Annals de la Societe d'Agriculture de la Martinique (Tome II), quoted in Jumelle's Cultures Coloniales, p. 212.

In moist regions, where the mango fails to flower, it will be found necessary to check the growth. This can be accomplished in a variety of ways, the most primitive of which is mutilation of the trees or ringbarking the smaller branches. This method is common in India, but is not recommended as it disfigures the trees and may eventually kill them. Concerning the efficacy of this treatment, Mr. Horace Knight reports that in Queensland trees 10 or 12 years old that had been bearing only about a dozen fruits, after being ringbarked on their smaller branches by opossums, bore such a crop that they had to be propped to save them from breaking. The method recommended by Mr. Knight, however, is that of root pruning, which he thinks will accomplish the same result without disfiguring the tree.

Another method is to lay the roots bare for a time, and as soon as the tree flowers cover them with rich earth. With trees growing in warm, moist localities Woodrow advocates the application of salt at the end of the rainy season, about 10 pounds to the tree. This doubtless acts in the same manner, and if efficacious would seem a simple and economical method.

Under favorable conditions the mango is very prolific. The tree shown in Pl. II was estimated to have in the neighborhood of 5,000 fruits at the time the photograph was taken, and trees quite as prolific were seen near Cabo Rojo, P. R.; while trees in southern Florida before the freeze of 1886 were estimated to bear as high as 10,000 mangoes. From this it will be seen that with 25 to 100 trees per acre enormous quantities of mangoes can be produced on very small tracts of land, provided the right climatic conditions exist.

DISEASES.

The mango in Porto Rico seems almost entirely free from diseases or the attacks of insects. On the north side of the island the skin of the fruit is frequently disfigured by black spots, probably a fungus. Though in no way injuring the eating quality of the fruit these detract from its appearance and would doubtless lessen its market value. In the drier localities this discoloration was not observed, the fruit being uniformly smooth and clear. Should it be deemed advisable to take measures to prevent these spots, spraying with some fungicide would doubtless accomplish the desired result. With the introduction of better varieties, some of the diseases met with in other countries will possibly make their appearance. In Trinidad the better varieties are frequently affected by a disease that causes the pulp around the seed to darken and become sour and entirely inedible. It seems not improbable that the moist conditions prevalent in Trinidad may conduce to this disease, in which case the dry south side of Porto Rico will have an additional advantage.

In Porto Rico termites frequently build their nests in mango trees, but their galleries are constructed entirely on the outside of the bark, and do not appear to injure the tree in any way.

In introducing new varieties great care should be exercised not to introduce any of the almost innumerable parasites, both animal and vegetable, that prey upon the mango in other countries. All grafted stock and cuttings should be carefully inspected and disinfected before being planted.

USES.

The principal use of the mango is as a fresh fruit, and as such it deserves to become as common as the orange or the banana. A justification of this rather sweeping assertion is to be found in the degree of popularity which the mango enjoys in comparison with these better-known tropical friuts in countries where all are well established. Experience has shown that such comparisons are a better criterion of the ultimate popularity of an introduced fruit than the judgment of otherwise competent persons with whom the fruit is more or less of a novelty.

The intense flavor of some of the most fibrous mangoes is by many preferred to the milder and less fibrous varieties. The eating of the former is, however, such a difficult and untidy performance that the taste is much less frequently acquired than would be the case could some better method of conducting the operation be devised. Where the fruit is plentiful the method of peeling shown in Pl. VI enables one to secure the greater part of the flesh of a stringy mango without soiling the hands. A cut is made around either end of the fruit and these are then connected along one side, the central strip being peeled off in one piece. The skin remaining on the ends of the fruit affords a means of holding it without the fingers coming in contact with the juicy flesh. If in addition a sharp-pointed fork is at hand, this can be firmly fixed in the seed and the skin at the ends removed, thus saving the sweetest part of the fruit. Pl. VI, fig. 3, shows a special mango fork secured in Mexico by Dr. J. N. Rose. The long, slender tine in the center easily penetrates the seed and the shorter outer tines need only to touch the seed to prevent it from turning.

The mango has numerous important secondary uses, among which may be mentioned the following:

THE CANNING OF THE GREEN OR RIPE FRUIT.

Mr. E. M. Shelton,[a] of the department of agriculture, Queensland, gives the following recipe:

> After peeling, the fruit is separated from the stones by slicing into pieces of convenient size; these should be stewed for a few minutes only, before pouring into cans, in sirup strong or weak in sugar to suit taste, or the fruit may be cooked in the can

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[a] Bulletin of the Botanical Department of Jamaica, July, 1894, Vol. I, p. 111.

with sirup, as before. There may be a difference of opinion as to the palatableness of canned mangoes. A considerable number of those persons who have tasted the results of our work have pronounced the canned fruit excellent, while others have declared their indifference to it. A like diversity of opinion, we note, holds respecting the raw fruit, particularly to those unaccustomed to its peculiar flavor. Mangoes stewed in the form of sauce will be found a welcome addition to any dinner table. "As good as stewed peaches," we have heard them pronounced.

MARMALADE AND JELLY.

The same writer also gives the following directions for making the fruit into marmalade and jelly:

Marmalade.—Peel and slice the mango, cutting close to the stone, and cook, using plenty of water. Boil until the fruit is thoroughly disintegrated, when the pulp should be run through the colander with the purpose of extracting the "wool." Sugar should now be added to suit the taste (about three-fourths of a pound to the pint of pulp), and the mass boiled until clear, when it should be poured into the molds or jars in which it is to be kept. This marmalade is of a rich golden-yellow color; it retains the form of the mold perfectly, and seems in all respects to satisfy the most exacting taste. In the absence of the experience necessary to test the keeping qualities of mango marmalade, it would be the part of wisdom to seal the jars designed for future use while hot with wax, or better yet, with a plug of cotton wool.

Jelly.—For jelly, prepare the mangoes by slicing as for marmalade, boil the fruit with water, prolonging the boiling only to the extent of extracting the juices. Great care should be taken in boiling, as the mango rapidly "boils to pieces," in which case it is impossible to make satisfactory jelly. Pour off the juice, strain, and boil down to a jelly, an operation that occupies only a few moments, as the mango is rich in gelatinous materials; the pulp remaining after the jelly has been removed may be used to advantage in making marmalade. In the amount of sugar used in making jelly, the housekeeper is safe in following old practices in this respect with other fruits. It is impossible to give exact rules in all the operations connected with working up this fruit. In general, it will be well to use, in boiling, water somewhat to excess, and as the mango "cooks" readily, constant watchfulness is needed to prevent burning.

To show something of what is possible in the way of results with this fruit, I may say that in our experiments 13 good-sized mangoes gave 1 pint of jelly and 5 quarts of marmalade. This certainly must be counted a very favorable, not to say remarkable, result.

About Acapulco Dr. Edward Palmer found the foreign residents making the unripe mangoes into an excellent jelly, with the mango flavor so modified as to please even those who do not care for the fresh fruit. At the same place the experiment had been tried of making sweet pickles of the green fruit, with very satisfactory results.

During the height of the season in Porto Rico, mangoes can be bought at retail at the rate of 5 to 25 cents per hundred, at which price the cost of the fruit in making jellies and marmalades is nominal, and as the cheap sugar made in Porto Rico is suitable for making preserves, and the transportation charges on the finished product low, it would seem that if a salable article could be produced, its manufacture ought to be profitable. In view of the abundant supply and the wonderful cheapness of the mango in Porto Rico, some of these uses will warrant investigation and experiment. Another consideration in this regard is the fact that the commoner sorts at present growing in Porto Rico are probably much better suited to the above uses than the milder-flavored varieties so highly prized for consumption in the fresh state.

A very delicious dish can be made by simply peeling mangoes when unripe but nearly full grown; slice, place in a dish, pile on sugar, and bake in a slow oven.

CHUTNEY.

The mango forms one of the chief ingredients of chutneys, concerning which the following, copied from Bulletin No. 46, Botanical Department, Jamaica, applies equally well to Porto Rico:

> Large quantities of chutney are imported into America from India, although it could readily be supplied from Jamaica, affording employment to a number of people, and utilizing much material which now goes to waste.
>
> The following recipe has been kindly forwarded by a correspondent: Three pounds common mangoes (turned, but not ripe); 3 pounds tamarinds; 2 pounds raisins (weighed after stoning); 8 pounds brown sugar; ½ pound chilies; 2 pounds green ginger; ½ pound garlic or 1½ pounds onions; ¼ ounce mace; 1 ounce mustard seed; ¼ ounce cloves; ¼ ounce pimento; ½ pound table salt. Soak the tamarinds in 2 quarts of the best vinegar, stir them about with a wooden spoon to get the pulp off, and take out the seeds and the leathery part in which they are inclosed. Cut the raisins small. Peel the ginger and grate it. Pound the chilies, garlic, and mustard seed in a mortar, using a little of the vinegar to moisten. Mix all together thoroughly; it is then ready for use.

ALCOHOL.

According to Mr. Dybowski,[a] the bruised and imperfect fruit that would otherwise be lost is sometimes utilized to produce by distillation a fair grade of alcohol.

MEDICINAL PROPERTIES.

While not possessing any pronounced and universally recognized medicinal properties, the mango is in India credited by the natives with a great variety of virtues, and numerous medical authorities speak very highly of certain of its uses.

As stated elsewhere, the fresh ripe fruit is considered slightly laxative and diuretic. The rind and fiber, as well as the unripe fruit, are astringent and acid. A long list of medicinal properties is given in Watt's Dictionary of the Economic Products of India, among which the most important and best authenticated are the following:

The unripe fruit, peeled, cut from the stone, and dried, is considered one of the best antiscorbutics, and is said to stamp out scurvy when lime juice and all other available remedies fail. Prepared in this way it is known as *amchúr* or *ambchúr*, and is an extensive article of diet in India.

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[a] Traité Pratique de Cultures Tropicales, Paris, 1902, p. 534.

The dried and powdered kernel of the seed is a valuable astringent, extensively used in cases of diarrhea and dysentery. One-half of a kernel taken in the morning and the same dose repeated in the evening are said to cure the most obstinate case inside of five days.

The unripe fruit roasted and made into a sherbet is taken by the natives of India to prevent sunstroke; the pulp is also rubbed over the body for the same purpose.

An extract of the bark or rind is highly recommended for its extraordinary action in cases of hemorrhage.

DYE, TAN, AND PIGMENT.

In some parts of India[a] the leaves of the mango are used to produce a yellow dye, as is also the bark, which is frequently mixed with that of other trees, among which are mentioned the pomegranate and a species of Bauhinia. With the bark of some trees it yields a permanent black. The juice of the bark mixed with lime is said to produce a fleeting green dye, while the addition of tumeric to the above mixture gives a bright rose-pink.

The dry, unripe fruit is extensively used as a mordant, especially in dyeing with safflower.

The bark and even the leaves are used as a tanning material, one sample of the bark yielding, on analysis, 16.7 per cent tannin.

Piuri, or Indian yellow, a coloring matter used in water colors and for painting houses in India, is indirectly the product of the mango. Before August, 1883, the source of this Indian coloring matter was unknown. At that time F. N. Mukhargi, at the request of Sir Joseph Hooker, made a trip to Monghyr, where the dye is produced, and found that it was obtained from the urine of cows fed on mango leaves. His letter is published in No. 39 of the Kew bulletins. Mr. Mukhargi states that the cows utilized for this purpose are kept exclusively on a diet of mango leaves and water, which increases the bile pigments and imparts to the urine a light-yellow color. The cows thus treated are made to pass urine three or four times a day by having the urinary organ rubbed, and soon lose the ability to urinate voluntarily. The urine is heated and the yellow precipitate is strained out and made into balls, dried on charcoal fires and in the sun, when it is ready for market. The price paid by the dealers is about 40 cents per pound. About 2 ounces a day is obtained from an average cow.

An exclusive diet of mango leaves is said to be injurious to the cows, and to keep up their strength the animals are now and then allowed grass or other fodder, which, however, reduces the proportion of the coloring matter.

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[a] Watt's Dictionary of the Economic Products of India, Vol. V, p. 152.

GUM.

The gum which exudes from the trunks of mango trees, frequently in considerable quantities, is said to be a substitute for gum arabic.

MINOR USES IN INDIA.

The multitude of uses the mango has in India, where it is not merely a luxury but an important food staple, have been summarized in Watt's Dictionary as follows:

> When green, the stone is extracted, the fruit cut into halves or slices, and (*a*) put into curries; (*b*) made into a pickle, with salt, mustard oil, chilies, and other ingredients; (*c*) made into preserves and jellies by being boiled and cooked in sirup; (*d*) boiled, strained, and with milk and sugar made into a custard known as mango-fool; (*e*) dried and made into the native "ambchur," used for adding acidity to certain curries; (*f*) when very young cut into small pieces, mixed with a little salt, and sliced chilies and milk added, it forms a "tasty" salad.
>
> When ripe (*a*) it is made into curry which has a sweet, acid, not unpleasant, taste; (*b*) it is cut into small pieces and made into a salad with vinegar and chilies (the sour fruit is sometimes so used); (*c*) the juice is squeezed, spread on plates, and allowed to dry; this forms the thin cakes known as amb-sath. The kernels are eaten in times of famine, and by the poorer classes in many parts of India they are boiled and eaten as greens. They are also ground with meal and mixed with various other ingredients to form the relish known as am-khatai. When stuffed with coriander, turmeric, and other spices, and boiled in mustard oil, they are esteemed a great delicacy.

THE MANGO IN PORTO RICO.

PRESENT STATUS.

The mango is one of the most common fruits in Porto Rico, and during the season when this fruit is ripe it is eaten in larger quantities than any other, with the possible exception of the banana, which latter is used more as a vegetable, cooked in one form or other. That it is a popular as well as common fruit is shown by the fact that when mangoes are scarce people are willing to pay comparatively high prices for them, and this in spite of their being looked upon as luxuries rather than as staple articles of food.

Porto Rico seems very well adapted to the production of mangoes and, as the plant is strictly tropical and very susceptible to cold, would seem to have a decided advantage over Florida, where good varieties are already successfully grown, but where, except in the extreme southern part, the danger of injury from cold is very great. A really high-grade mango is unknown in Porto Rico, and the first steps toward making their exportation profitable is the introduction from the other islands, or from Florida, Mexico, or the East Indies, of grafted stock of the best varieties. Even seedlings of improved forms would without doubt be a great advance, but until the quality is in some way improved the shipping of mangoes in other than small lots will scarcely prove profitable, as the sale of the mango in its present form will be largely limited to those who have at some time lived in a country where the fruit is grown and have already acquired a liking for it. With this class even poor mangoes will always find a market, if good ones are not to be had.

That mangoes of the best varieties can be grown in America has been demonstrated, although only small quantities are as yet produced. Mr. D. G. Fairchild, who has had excellent opportunities to test mangoes in all parts of the world, says that with the possible exception of the Bombay Alphonse the finest mango he ever tasted was one of the variety known as "Mulgoba" and grown in Florida.

The mango grows in all parts of Porto Rico, but is more common on the drier south side of the island, where the trees will occasionally be seen growing so thick as to suggest an orchard. (See Pl. I.) It can scarcely be said to be cultivated at all, as few trees are planted and most of the fruit is obtained from trees that have spread spontaneously. It seems to prefer dry hill slopes, and was seen in the greatest profusion about Cabo Rojo. Trees are seldom seen growing about houses. This may, however, be due to a superstition that the shade of the mango is dangerous, our Porto Rican driver on one occasion preferring to have his horses stand in the hot sun rather than in the shade of the deadly mango.

If the tree is propagated artificially at all, it is by means of seeds. The only indication that any grafted stock exists in Porto Rico was a statement heard in Yauco to the effect that the variety known as Melocoton is from grafted stock brought from Martinique. The importation may have been made, but even if such is the case it has been of little value, as it has since been propagated only through seedlings.

The season of ripe mangoes in Porto Rico is from May to August. By selecting proper varieties this might be prolonged, since in some parts of India it extends over a period of six months. This would be a great advantage in shipping the fruit to temperate regions, as at present the season coincides with the season of temperate fruits, which places the mango at a decided disadvantage.

BEST LOCALITIES.

Mango plantations in Porto Rico, to be most profitable, should without doubt be located in the drier parts of the island, where, as has been said, the trees are not only more prolific, but the fruit is better formed and more free from blemishes. The whole south side, a narrow strip across the western end, and the northwest corner would seem to be well adapted. The southwestern part of the island is at present producing the best mangoes. In this region there are many more or less extensive tracts of low-priced land unsuited to the growing of other crops, but apparently adapted to the mango.

Mango trees are common about San Juan, but this region is so moist that the trees are not prolific and the fruit is frequently deformed and spotted.

PORTO RICAN FORMS.

There are a great many forms of the mango in Porto Rico, but at present their classification is little more than a list of names. The same name is applied in different parts of the island to distinct fruits, and, again, what appears to be the same form will receive distinct names in different localities. In any given market, however, considerable agreement will be found as to the terminology of forms, though the fruit is evidently picked in bulk and sorted before being offered for sale. In some markets this is carried much farther than in others. The fruit of the same tree seems always to be very nearly uniform, but as the mango comes true to seed only to a limited extent and the fruit in Porto Rico is all from seedlings, an almost endless variety is naturally to be expected.

True varieties—that is, varieties propagated by asexual methods—do not exist in Porto Rico, and the following descriptions are intended to assist in fixing the vague terminology of the market forms and if possible to stimulate further observation as to whether these come true to seed. These forms should not be confused either with true horticultural varieties or, until further investigation, with races that are known to come true to seed.

The forms described below are those that fell under immediate notice, the name most commonly in use being appended.

Mango de Mayaguez (Pl. VII).—A small yellow form, with comparatively large seed, but with good flavor, soft flesh, and few fibers. This form, for sale in the San Juan markets, is considered one of the finest. It has very little of the turpentine taste, but its flavor did not appear to be any better than that of several others, while its small size and thin flesh make it seem on the whole inferior. In shape it is asymmetrical, with depressed stem. The color in the early part of the season is a uniform yellow; later many specimens were seen with one side red.

Mangotina (Pl. VIII, fig. 4).—A very small yellow form, with one side red. Similar to the Mango de Mayaguez seen at San Juan but longer, with rounder base and the stigmatic point nearer the apex.

Melocoton "peach" mango (Pl. VIII, fig. 1).—A small yellow and red form seen at Yauco, said to have come from grafted stock brought from Martinique. Base very square, stem slightly depressed, skin thin, meat with very few fibers, mild in flavor.

Mango de rosa (Pl. VIII, fig. 2).—A nearly spherical form seen at Yauco, yellow in color, with one side a beautiful red. The skin is very thin, the meat comparatively free from fiber, very mild and pleasant, without a trace of the turpentine flavor.

Mango piña (Pl. IX).—A short, thick form found in the San Juan market before the middle of June, green, slightly asymmetrical, with rather oblique base, stem depressed. The meat is thick, of good texture and flavor.

Mango largo (Pls. VIII and X).—A form common on the south side of the island and at Mayaguez. Long, nearly straight, stem not depressed, green in color. The flesh is very firm, moderately thick, and with very few fibers. At Yauco slightly shorter specimens were called "Mangotina," a name used very loosely in all markets, this form selling there at 10 for 1 cent. The flavor is fine, though the taste of turpentine is pronounced, and to those who do not object to this feature it will appeal as one of the best Porto Rican forms.

Mango mangó (Pl. XI.)—A large, rather straight form, with a very square base, somewhat resembling "largo," but slightly more symmetrical and thicker. Large quantities were seen in the San Juan market on June 22; a month later none were to be found. The flesh was fairly thick and of good quality.

This name may possibly be a contraction of *mangon*, which would be not at all inapplicable, as this is one of the largest Porto Rican forms. Stahl gives *mangó* as the common name of *Mangifera indica* in Porto Rico.

Mango jobos (Pl. XII).—A common form in the San Juan market in the early part of the season. A very poor kind, considered to be the wild or unimproved form. It is green in color, with a large seed and very stringy meat, frequently ripening unevenly and having a strong turpentine flavor. In form it is slightly asymmetrical, stem not depressed.

Mango redondo (Pl. XIII and Pl. IV, fig. 2).—A large, thick-meated form, common in the Ponce market. In form it is quite symmetrical, with a decidedly depressed stem. In color it varies from green to red, the difference being in some instances so marked as to suggest a distinct type. The color seemed the only difference, however, and the market people insisted that the green and red might come from the same tree. The flesh is very juicy, moderately free from fibers, and of a very good flavor.

VARIETIES TO BE INTRODUCED.

There are probably hundreds of excellent varieties and forms grown in India and elsewhere that might profitably be introduced into this country, but it would perhaps be better to introduce a very few of the best sorts and get them thoroughly established than to dissipate energy on a great number.

As early as 1869 some seventeen varieties of Indian mangoes were successfully introduced into Jamaica. These have since been propagated and new importations made until there exists in Jamaica a considerable number of Indian mangoes. The best varieties are, however, confined to gardens, and very few of the choicer kinds are exported. There are also a few Indian varieties in Trinidad and Florida.

Among the varieties of mangoes that should be introduced into Porto Rico, the following may be mentioned:

Mulgoba.—"Form roundish, oblique, reniform; size large, weighing from three-fourths pound to 1 pound; surface smooth and undulating; color yellow, beautifully blushed with red and faintly dotted with numerous brown dots; skin thin, tough, tenacious; seed reniform, oval, rather large; fiber scanty, fine, and tender; flesh rich, apricot yellow, very tender, melting and juicy, sweet, rich, fragrant; quality very good.

"The Mulgoba surpasses in flavor and quality the seedlings previously grown, but its most distinctly marked features of superiority are the tenderness of the flesh and absence of the objectionable fiber and strong turpentine flavor common to most of the seedlings grown in this country.

"The tree is a strong, symmetrical grower, and appears to be abundantly productive."[a]

Grafted stock of this variety was secured by the Division of Pomology, U. S. Department of Agriculture, in 1889 and placed with fruit growers in southern Florida. After a narrow escape from the freeze of 1895 the surviving tree has done well, and the variety has been successfully propagated. This variety should be at once introduced into Porto Rico.

Alphonse, *Aphoos*, or *Alfoos*, is perhaps the most noted of mangoes. Woodrow says:

> It is universally admitted to be the finest of all mangoes. In flavor its fruit is indescribable; it seems to be a subtle blending of all agreeable flavors. In weight the fruit averages 8 ounces, and in color green, enriched by a crimson glow on the exposed side, and in shape oblong, slightly thickened at the upper end, and without any prominent stigmatic point or beak.
>
> The leaves vary much in size and shape, and with difficulty can be distinguished from common varieties; but among the choice varieties the leaves of the Alphonse may be known by the bright red midrib apparent until the leaves are nearly ripe. The branches of the inflorescence are of a rich rosy color.
>
> In manner of growth or habit this variety is rather stunted and irregular, rarely forming a graceful tree. It is also very delicate and apt to give way before insect attacks more than other varieties; but as its fruit is valuable it should be kept free from insects and otherwise protected in proportion to the price the fruit brings.[b]

This is a very early variety and so highly prized in India that as much as $19 a hundred is sometimes paid by dealers for selected fruit.

In June, 1902, several inarched plants of this variety, all from a single tree known to produce superior fruit, were sent from Bombay by

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[a] W. A. Taylor, Yearbook, U. S. Dept. of Agr., 1901, p. 390.

[b] Gardening in India, pp. 226, 227.

Mr. D. G. Fairchild, Agricultural Explorer of the U. S. Department of Agriculture. Some of these were sent out at once through the Division of Pomology to experienced growers in Florida, where they were budded on healthy stock and are now doing well. Budding was also successfully accomplished from the remaining plants held in the greenhouses at Washington, and the variety seems now safely established.

A letter from Col. J. G. E. Griffith,[a] Hodges, Black River, Jamaica, states that after three attempts he imported in 1901 six Alphonse and six Paeree plants, eight of which are now doing well. Five of these are believed to be Alphonse.

Every effort should be made to preserve this valuable variety, and budded or inarched stock should be introduced into Porto Rico as soon as possible.

It might also be desirable to secure one or two of the late fruiting forms. Several varieties, grouped in Watt's Dictionary under the name of Budayas, are said to fruit as late as September or October, whereas the Alphonse fruits in May.

No. 11.—This variety, the original stock of which was among the first mangoes introduced into Jamaica by Captain Marshall, in 1782, is still the most popular variety in the island. It is a fine fruit, though somewhat stringy, and is said to come true to seed. Mr. Hart identifies this variety with the Reine Amelie of Martinique. As Martinique received a large part of its early introduced plants from Mauritius, the source of this variety in Jamaica, this identification doubtless means identity of origin, and the fact that these distinct strains are still identifiable would argue great constancy for this variety. Budded stock of this variety is also growing in Florida.

Manila (Pl. XIV).—A Mexican race, almost entirely free from fiber, and of a mild, pleasant flavor. The skin is uniformly light yellow and thin; the flesh is also light colored and firm. The seed is very thin and small in proportion to the amount of flesh.

This is a really high-grade mango, not unlike the Mulgoba in flavor. Its shipping qualities have not been tested, but perfectly ripe fruit purchased in Mexican markets kept in good condition for several days. This mango was very popular in the City of Mexico about the end of June. It was sold in all the markets and hawked on the streets, the price being usually 4 cents apiece Mexican. The uniformity of the fruit as it appeared in the different markets, taken with the absence of asexual methods of propagation in Mexico, would argue that it is a form that comes true to seed. If this is the case, it would certainly be one of the most desirable mangoes for Porto Rico, and seed should be secured at an early date.

The name of this race suggests that it came from the Philippine

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[a] Bul. Bot. Dept. Jamaica, Vol. VIII, pts. 11 and 12.

Islands, and indeed it is not impossible that it was brought to Mexico from those islands by one of the Spanish galleons that during the seventeenth century plied regularly between the Philippines and Mexico.

A form resembling this in Guam is there commonly supposed to have come from the Philippines, but as ships only touched at Guam on the return voyage from Mexico the fruit must have reached Guam by way of America, and would naturally have become established in both countries. Possibly a further confirmation is to be found in the occurrence of the same or a very similar form in Cuba, known as the Philippine mango.

Mango china.—A very fine seedling race, common in the markets of Guatemala City, and considered the finest mango of that region. The form of the fruit is characteristic, being very thin and almost circular in outline, with a prominent blunt "nak," located some distance from the apex. The flesh is thick and remarkably free from fiber for a seedling, mild and aromatic, without suggesting turpentine.

This variety differs from others examined in having pronounced longitudinal ridges on the seed, which is thin and very broad. (See Pl. V, fig. 1.) Like the Manila of Mexico, this form apparently comes true to seed. It could easily be secured and would certainly be an improvement on anything at present in the island. By some this form is called *Mango de brea.* This name is, however, more appropriately applied to another form in which the fruit is more or less coated with a pitch-like exudation, *brea* meaning pitch.

There are a number of excellent varieties and forms already growing in other islands of the West Indies, which it might be desirable to introduce. The fact, however, that Indian fruit is outselling the West Indian in the London market would indicate that the best Indian varieties should receive the most attention. It is possible that the best kinds are not exported from the British West Indies where mangoes as good as Indian varieties may be growing, but where under the unfavorable conditions they do not bear sufficient fruit to permit of being exported. These same mangoes, if transplanted to the south side of Porto Rico, might become much more prolific, and on account of the ease with which they could be introduced the subject should receive careful attention.

In Bulletin No. 20 of the Botanical Department of Trinidad, July, 1889, Mr. J. H. Hart describes the Trinidad varieties, some of which would appear to be very excellent. Among the most desirable kinds may be mentioned the following:

Gordon.—A fine large fruit. The seedlings are said to produce fruit almost identical with those of the grafted stock, and are thought to bear better.

Peters.—One of the finest flavored of all Trinidad mangoes, said to bear regular crops. In Trinidad this variety is very subject to souring in the center of the fruit. This would probably be much less troublesome in Porto Rico.

Julie.—A fine, large mango, with thin, long seed; commences to bear when very young.

On the west coast of Africa and in some other localities the mango has two seasons of bearing ripe fruit, about six months apart. At Esquintla, Guatemala, where the mango grows luxuriantly and is very prolific, this appears to be the case, as many trees were seen bearing flowers and nearly ripe fruit at the same time, April 16. If this is a difference in kind and not due to climatic conditions these forms should be imported, as the placing of a new fruit on the market would be greatly facilitated could it be done in the winter, when competition with native fruits would be less.

BEST METHOD OF INTRODUCING NEW VARIETIES.

The introduction of new varieties from the East Indies has been attended with much difficulty. Seeds can, of course, be secured at comparatively small expense, but in most of the cases on record only a small percentage have germinated, and these, after the trouble and delay of bringing them to bearing, are likely to produce fruit with only a slight resemblance to the variety desired.

Hitherto the most successful importations have been in the form of inarched stock in Wardian cases. This, though a very satisfactory method, is very expensive, and a less costly plan would greatly encourage importations.

Experiments in packing cuttings, suitable for budding, so that they may be sent through the mails, have been made by Mr. D. G. Fairchild. He recommends the following method:

> Have a cylindrical tin case made, 10 inches long, 2 inches in diameter, with a well-fitting cap 2 inches long, in which to send the cuttings through the post. This case should be fitted in a cloth sack before dispatching. Cut scions about 10 inches long, making sure that they have good buds on them. Dip the cut ends in collodion or melted beeswax, wrap each scion in a strip of light tin foil, and wrap these again in oiled paper. Pack not more than four or five in each case, with slightly moistened sawdust. Be careful to put the address on the tag.

The first shipment of mango cuttings packed in this manner arrived in rather poor condition, the sawdust in which they were packed being apparently too moist. Buds, which were immediately placed in the healthy stock, showed signs of life, but it is still too early to report the success or failure of the experiment. The sending of a second shipment, packed in drier sawdust, was so delayed that the severe heat encountered on the voyage resulted in an entire loss. Experiments with this method of packing are being continued by Messrs. Taylor and Fairchild, as the system has not as yet received a fair trial.

Experiments made by Mr. H. Knight, in Queensland, on the keeping quality of mango cuttings proved that cuttings carefully packed in cocoanut fiber would remain alive and in good condition for at least three and one-half months. Cuttings were tried in both moist sand and cocoanut fiber that had been boiled, washed, and squeezed dry. The cuttings were packed in tight tins. At the end of two months, of 14 cuttings packed in moist sand, all were dead but one, while after three and one-half months all the cuttings in the cocoanut fiber were alive and had shoots from 2 to 4 inches long. This length of time is ample for the introduction of new varieties from India to this country, but the cuttings thus experimented with were doubtless kept at a reasonably uniform temperature, and it must not be inferred that they would have survived a voyage to the West Indies where, owing to the changes to which they would be subjected, they would probably have deteriorated much more rapidly. The fact that the cuttings made sprouts, while indicating the success of this method of preserving the life of the cuttings, would not be desirable if the cuttings were to be used for budding. This could, however, doubtless be prevented by drier packing.

The introduction of new varieties by means of cuttings that can be sent through the mails would be such a simple and economical method that it is well worthy of experiment, but in view of the difficulties which many have experienced in budding the mangoes it may be well not to place too much dependence on this method until budding has been successfully accomplished from cuttings thus treated.

The propagation and dissemination of the finer varieties of the mango might well be one of the lines of activity of the experiment stations recently established in the tropical possessions of the United States.

PACKING AND SHIPPING.

The packing and shipping of mangoes is a question of great importance, as the success or failure of their production on a commercial scale is to a large extent dependent on its proper solution. With the poorer varieties, it is a comparatively simple matter, and the fruit wrapped in paper and packed in cases comes through in very good shape. With the finer varieties the question is, however, much more difficult. Sample lots of the best varieties grown in the West Indies have been shipped long distances, as from Jamaica to London, and have arrived in good condition.

In larger lots it would doubtless be much more difficult, but with proper care it would seem that the loss need not be serious. The advisability of shipping in cold storage has never been properly tested, but the general opinion seems to be that low temperatures injure the flavor of the fruit. Mr. J. H. Hart, Superintendent of the Royal Botanical Gardens of Trinidad, recommends[a] a temperature some 8° or 10° below that in which the fruit was ripened. "Pick the fruit," he says, "when fully formed or 'full,' handle without bruising, or, as I wrote many years ago of oranges, 'handle as you would eggs,' choose well-formed and uninjured fruit, pack so that fruit receives no undue weight or pressure, place for transit in a well-ventilated part of the ship, and nearly every kind of fruit can be carried successfully for voyages of from six to fourteen days or more, mangoes of the best kind among the number;" while experiments in shipping mangoes from Australia would indicate that a temperature of about 35° was the most satisfactory.

There can be no doubt that questions of ventilation and of packing so that the fruit is not subjected to undue pressure are of more importance than the exact temperature, and the instructions of Mr. Hart will, if followed, allow good fruit to reach the northern markets in prime condition.

The United States consul at Bombay, William Thomas Fee, in his report for October, 1901, states that in the large shipments of mangoes now being sent from India to London the fruit is packed in the cast-off boxes used for shipping oil to India, and that it arrives in good condition.

M. Nollet, director of the garden at Martinique, has succeeded in making small shipments from that island to Paris with a loss not exceeding 10 per cent. The fruit was wrapped in soft paper and packed one dozen in a box, the interstices filled with sawdust and the whole placed in cold storage.

The fruit is usually picked when of full size, but before it has completely ripened, and is placed in shade to complete the process. In some parts of India it is buried in the ground to ripen, as this is supposed to make it sweeter.

To establish a market for Porto Rican mangoes, it will be necessary for some individual or company to undertake to grade, pack, and ship the fruit on a scale sufficiently large to enable commission merchants to receive regular consignments and feel confidence in the uniform quality and condition of the shipments. Growers may hesitate to embark in the production of mangoes on a large scale before a market is assured, but a market will not be assured until the supply can meet the above conditions. A large and well-organized plantation could probably best meet these requirements, but, in the absence of such, the neighboring planters of mangoes might very advantageously cooperate by combining their crops and placing the grading, packing, and shipping of the fruit in the hands of one person. The industry might thus be successfully launched without serious risk to individual planters.

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[a] Bul. Royal Bot. Gardens, Trinidad, 1897–99, Vol. III, p. 192.

MARKET.

Although a local market already exists in Porto Rico, the only outlook for making the growing of mangoes profitable is in a trade with the temperate regions. Such a trade can hardly be said to exist in this country, for, although small lots are frequently sent North and are disposed of at from 5 to 10 cents apiece, they have been sold merely as novelties; for the few larger shipments that have been made there was no sufficient demand, and to avoid total loss prices had to be lowered so that Porto Rican mangoes have been sold in Washington at the rate of 2 for 5 cents.

What can be done with mangoes of the best quality in this country is still a matter of conjecture; but in view of the unanimously favorable opinion of those who have tasted good varieties, it would seem that it is merely a question of being able to produce good fruit and to ship it in good condition.

The history of the mango in Florida affords some very encouraging data regarding profits to be derived from mango culture. The following, quoted from Bulletin No. 1, Division of Pomology, U. S. Department of Agriculture, refers to trees growing in the neighborhood of Tampa Bay:

> One grower on the point sold, from eleven trees in the fourth year from the seed, fruit which brought him $219. In their sixth year he shipped bushels to various places, realizing at Chicago 60 cents per dozen, and the fruit shipping well. Another dealer received from the produce of one of his bearing trees $66 in its sixth year.

These mangoes were probably of inferior varieties, as Mr. William A. Taylor states[a] that prior to 1889 none but seedling mango trees were grown in Florida. On the other hand, the quantities were so small that the fruit was probably sold as a novelty and the profits realized give little idea of how larger and continued shipments would fare.

In England the trade is much farther advanced. There has been a small trade between Jamaica and England for a number of years. The following, copied from the Bulletin of the Botanical Department of Jamaica, No. 39, January, 1893, page 23, is a statement of the number and value of mangoes exported during the years 1887 to 1892, to which is added the approximate price per 100.

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[a] Yearbook, U. S. Dept. of Agriculture, 1901, p. 390.

Number and value of mangoes exported from Jamaica, 1887 to 1892.

Year exported.	Number.	Value.			Approximate value per 100.
		£.	s.	d.	
1892	258,060	203	2	6	$0.38
1891	222,020	158	12	6	.35
1890 (one-half year)	18,388	19	19	0	.53
1889	170,988	100	19	6	.29
1888	299,584	258	9	0	.42
1887	93,470	116	6	0	.60

The following statement is also made:

> This export will never be of any great value unless the fruit is picked by hand and packed with care, for the least bruise is fatal. Good mangoes would doubtless fetch a good price in New York.

Large shipments of fine East Indian mangoes are now being received in London and not only arrive in good condition, but are bringing fancy prices, quite outselling the West Indian fruit, to which they are much superior.

This is decidedly encouraging, for if there is a demand for good mangoes in England, why not in the United States? And if it is possible to successfully ship fine varieties from India to London, there ought surely to be no difficulty in shipping from Porto Rico to New York.

SUMMARY.

The essentials for making the cultivation of mangoes in Porto Rico a profitable industry may be summarized as follows:

(1) The introduction and propagation of good varieties, meaning (*a*) fair-sized fruit, moderately free from fiber and with little of the turpentine flavor; (*b*) fruit that will stand shipping; (*c*) early and late fruiting varieties, and if possible varieties bearing two crops a year.

(2) Care in picking, packing, and shipping, that the fruit may reach the market in good condition.

(3) A general supervision of the shipping by some responsible person or firm, insuring uniformity and regularity of supply.

(4) The placing of good fruit before the public in such quantities that the price need not be excessive, and that the supply can be regular and continuous during the fruiting season.

If these conditions can be met, an increasing demand may be expected, and there seems no reason why the commercial production of mangoes should not be added to the agricultural industries of Porto Rico.

PLATES.

DESCRIPTION OF PLATES.

PLATE I. Grove of mango trees between Cabo Rojo and Joyua, Porto Rico. These trees were injured by the hurricane of 1899, and have not regained their typical form.

II. Mango tree in fruit, Tapachula, Mexico; estimated to be bearing about 5,000 mangoes.

III. Branch of mango tree, with fruit, Tapachula, Mexico.

IV. Fig. 1.—Mango tree, growing in dry region near San José, Guatemala. Fig. 2.—Section of "Redondo" mango fruit, Ponce, Porto Rico. (Natural size.)

V. Mango seeds: Fig. 1.—"Cocha." Fig. 2.—"Largo." Fig. 3.—"China." Guatemala City, Guatemala. (Natural size.)

VI. Fig. 1.—Mango fruit, showing method of peeling. (Natural size.) Fig. 2.—Crate of mangoes shipped from Florida to Washington, D. C., showing a successful method of packing. (Photograph loaned by W. A. Taylor.) Fig. 3.—Mango fork. (Natural size.)

VII. "Mango de Mayaguez" fruit, San Juan, Porto Rico. (Natural size.)

VIII. Mango fruits: Fig. 1.—"Melocoton." Fig. 2.—"Rosa." Fig. 3.—"Largo." Fig. 4.—"Mangotina." Yauco, Porto Rico. (Natural size.)

IX. "Mango piña" fruit, San Juan, Porto Rico. (Natural size.)

X. "Mango largo" fruit, Ponce, Porto Rico. (Natural size.)

XI. "Mango mangó" fruit, San Juan, Porto Rico. (Natural size.)

XII. "Mango jobos" fruit, San Juan, Porto Rico. (Natural size.)

XIII. "Mango redondo" fruit, Ponce, Porto Rico. (Natural size.)

XIV. "Manila" mango fruit, City of Mexico. (Natural size.)

XV. "Mango china" fruit, Guatemala City, Guatemala. (Natural size.)

O

GROVE OF MANGO TREES, BETWEEN CABO ROJO AND JOYUA, P. R.

MANGO TREE IN FRUIT, TAPACHULA, MEXICO.

BRANCH OF MANGO TREE WITH FRUIT, TAPACHULA, MEXICO.

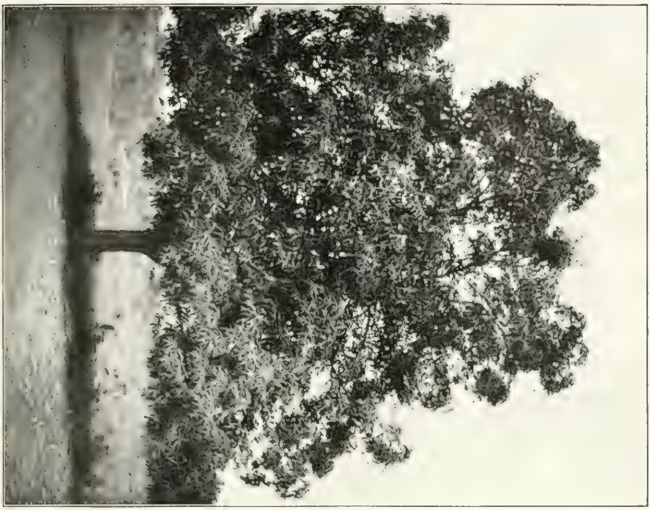


FIG. 1.—MANGO TREE GROWING IN DRY REGION NEAR SAN JOSE, GUATEMALA.

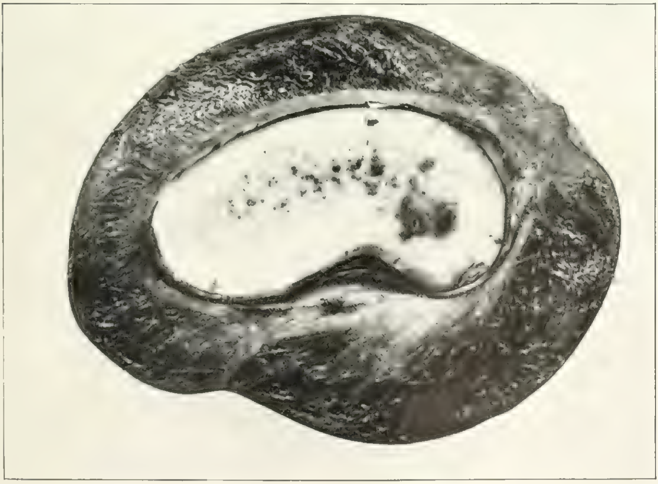
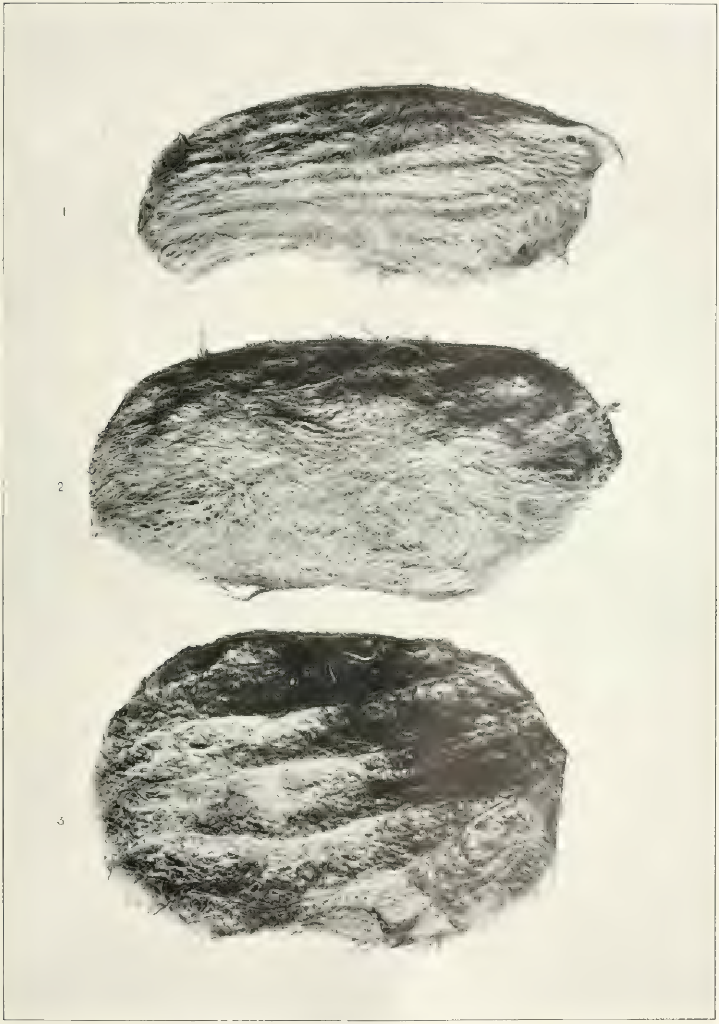


FIG. 2.—SECTION OF "REDONDO" MANGO FRUIT, PONCE, P. R. (NATURAL SIZE).



MANGO SEEDS, GUATEMALA CITY [illegible] NATURAL SIZE).

1, "Cocha;" 2, "Largo [illegible] China

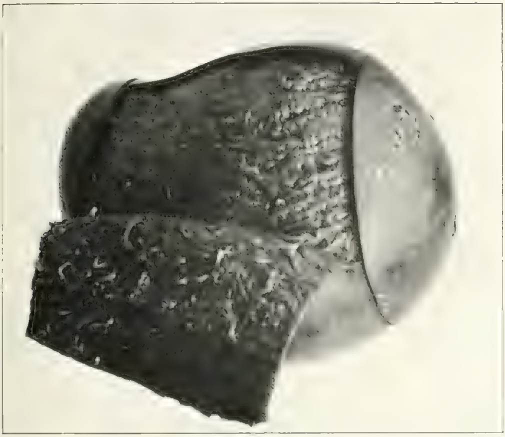
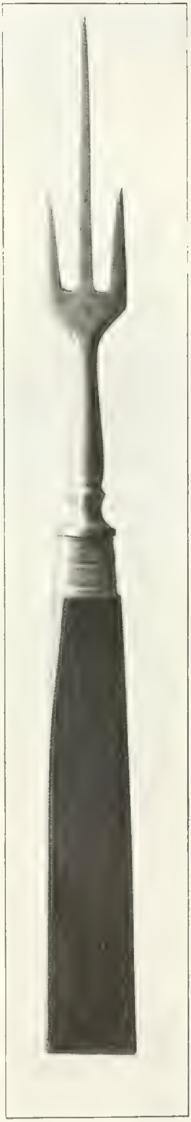


FIG. 1.—MANGO FRUIT, SHOWING METHOD OF PEELING (NATURAL SIZE).



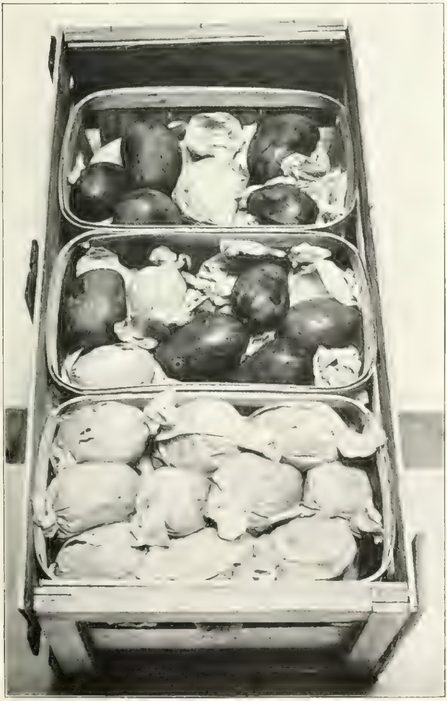
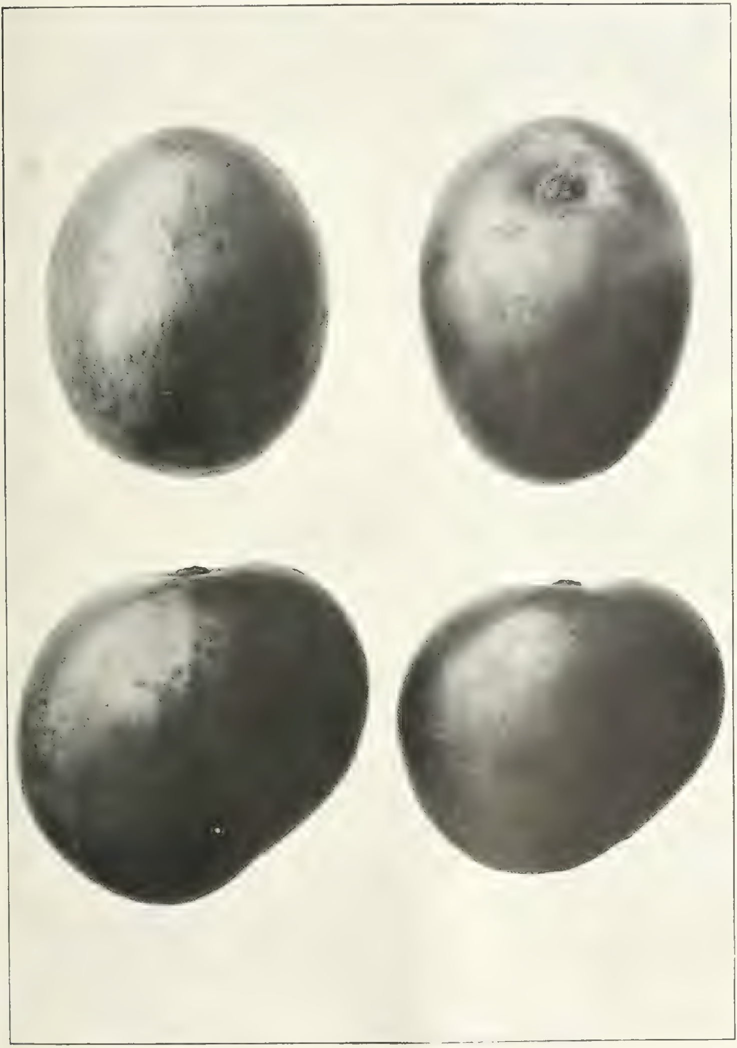


FIG. 2.—MANGO FRUIT, SHOWING METHOD OF PACKING.

FIG. 3.—MANGO FORK (FULL SIZE).



"MAYAGUEZ" MANGO FRUIT, SAN JUAN, P. R. (NATURAL SIZE).

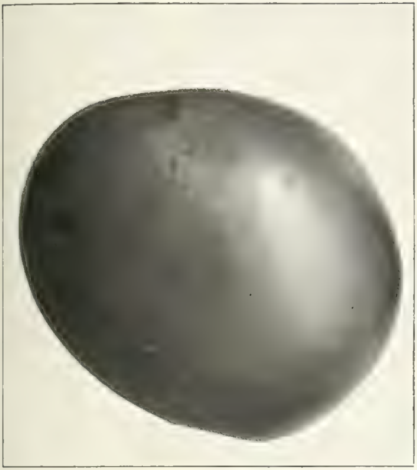


FIG. 1.—"MELOCOTON."

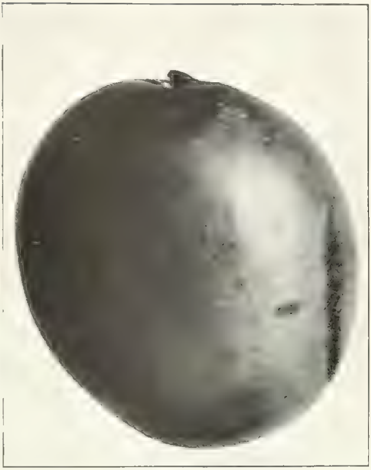


FIG. 2.—"ROSA."

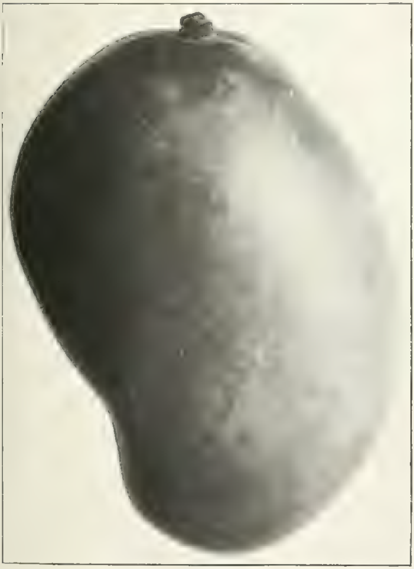


FIG. 3.—"LARGO."

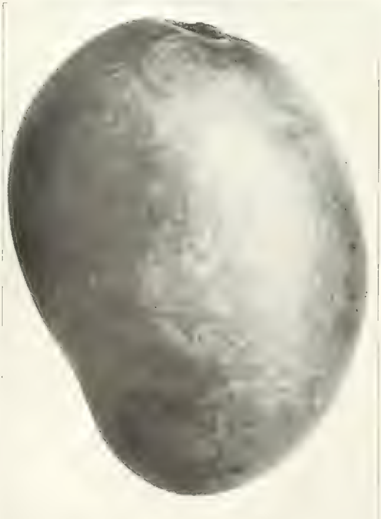
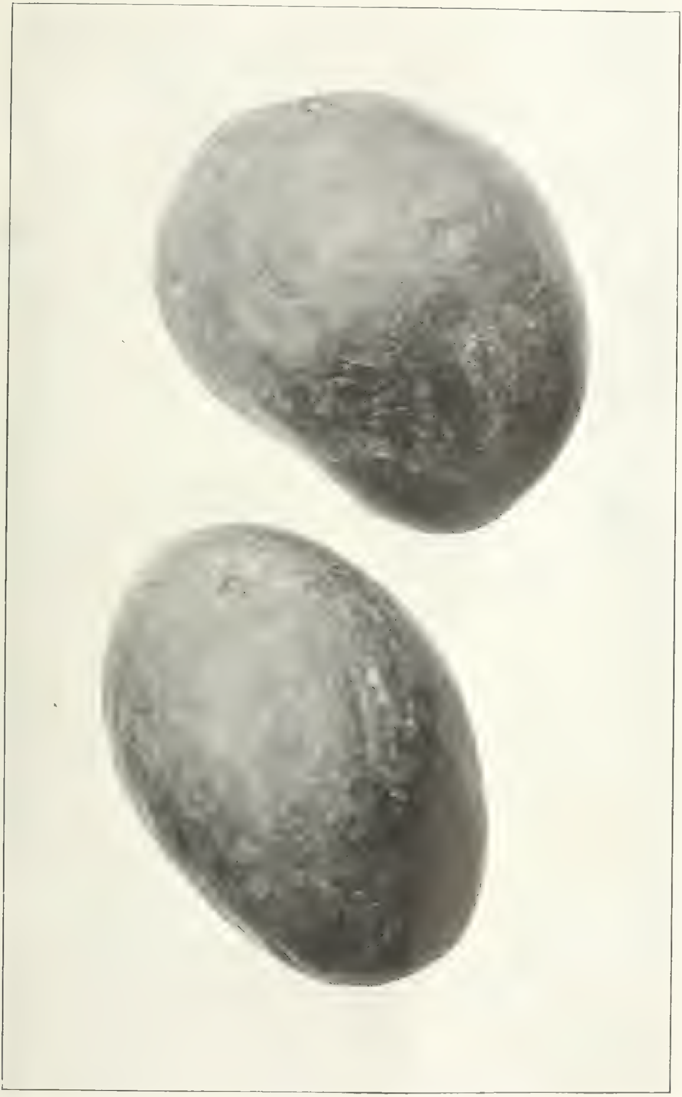
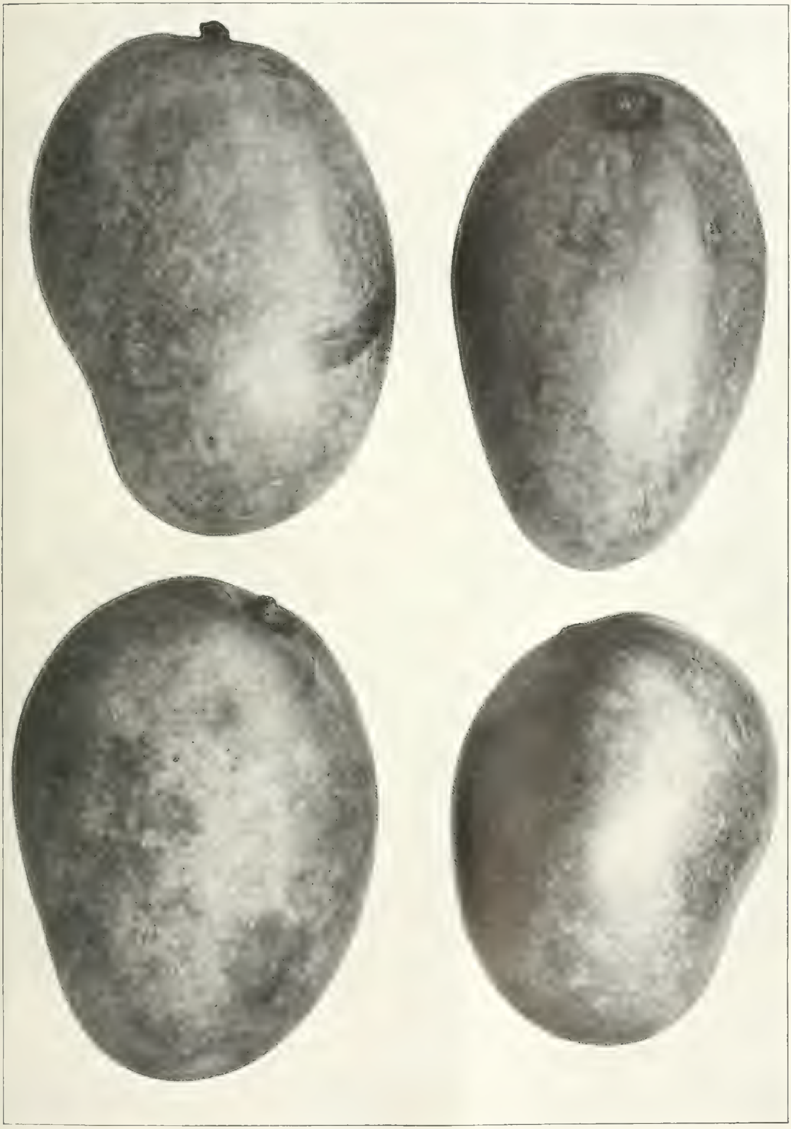


FIG. 4.—"MANGOTINA."

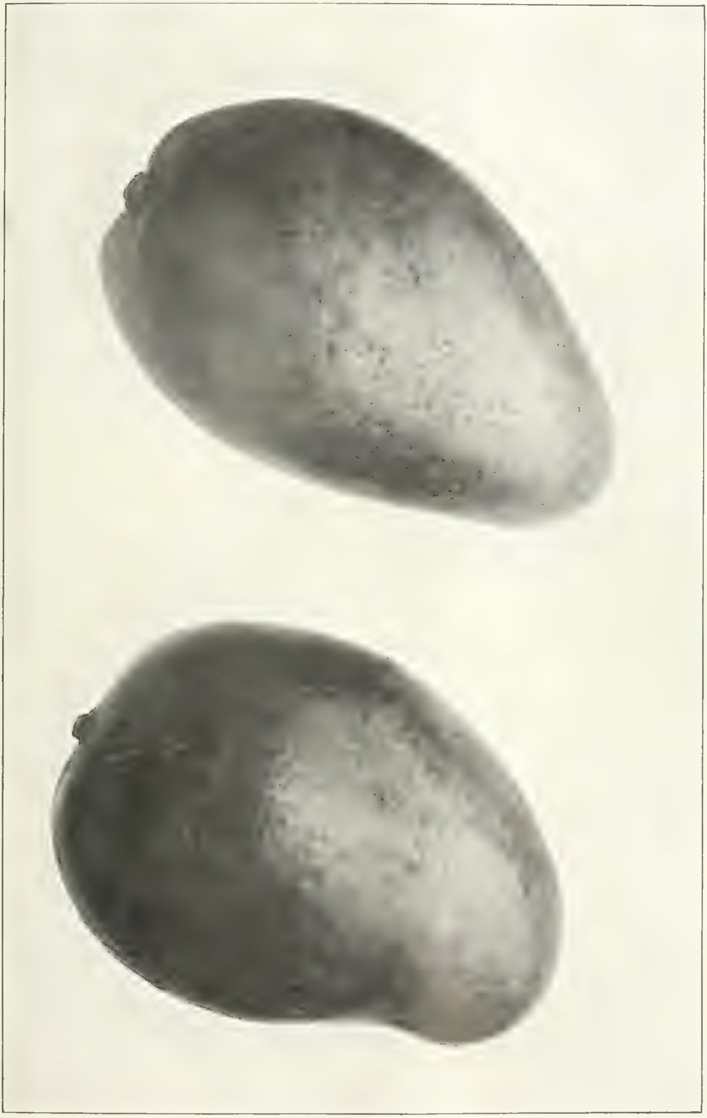
MANGO FRUITS, PORTO RICO (NATURAL SIZE).



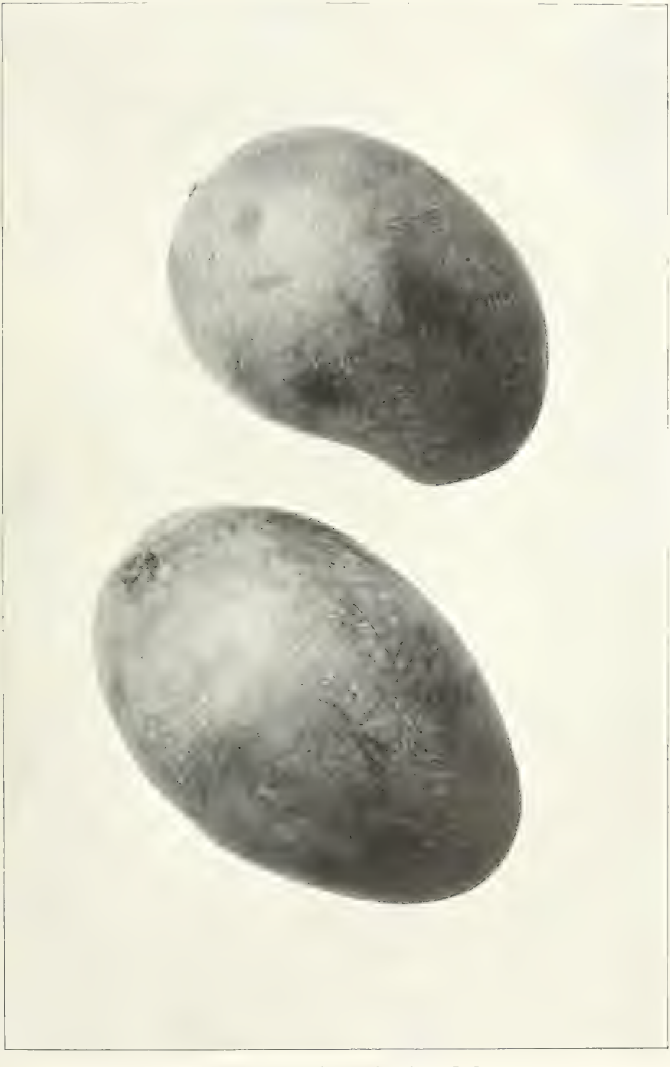
"PIÑA" MANGO FRUITS, SAN JUAN, P. R. (NATURAL SIZE).



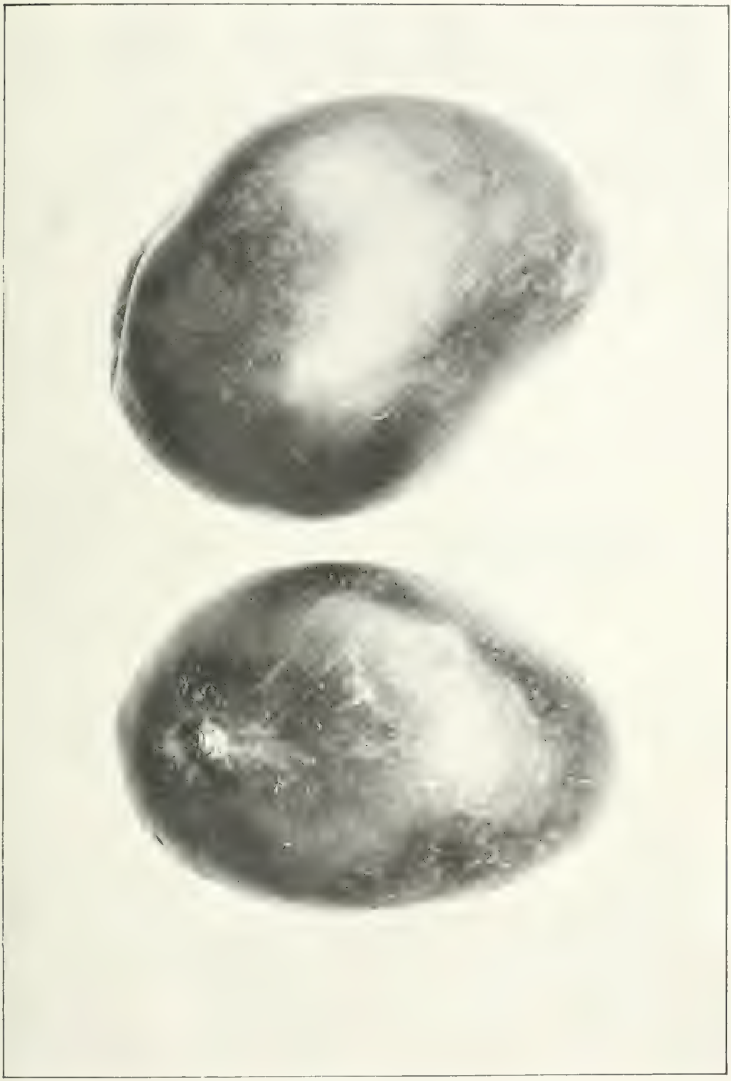
"LARGO" MANGO FRUITS, PONCE, P. R. (NATURAL SIZE).



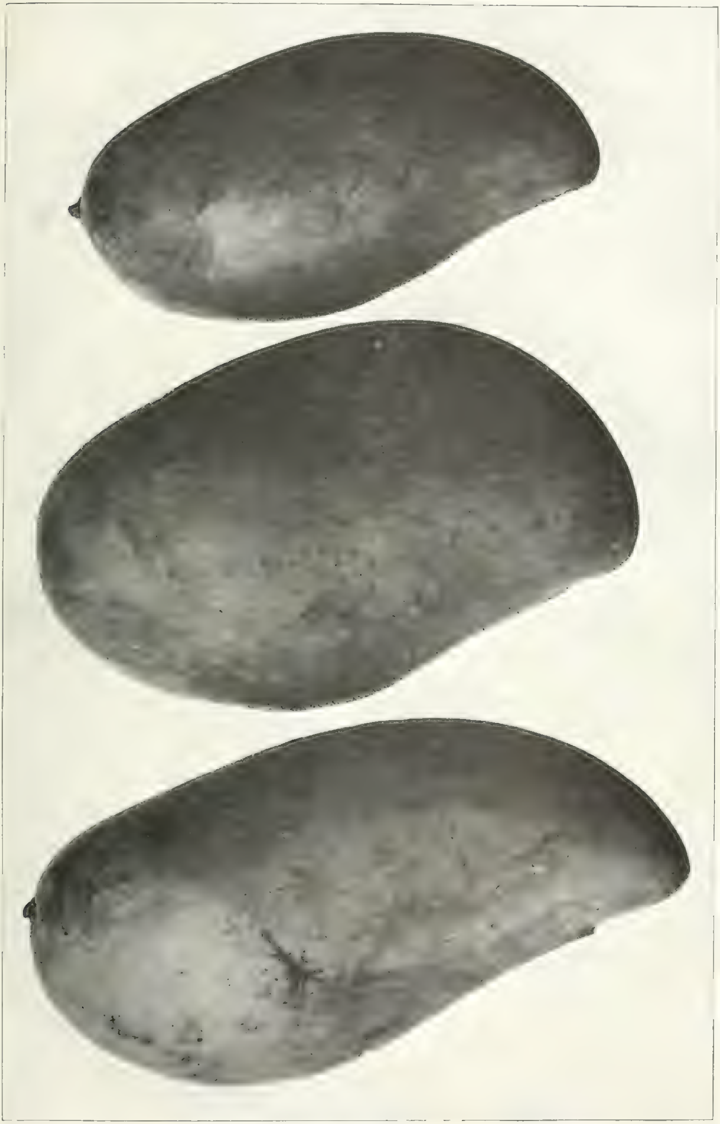
"MANGÓ" MANGO FRUITS, SAN JUAN, P. R. (NATURAL SIZE).



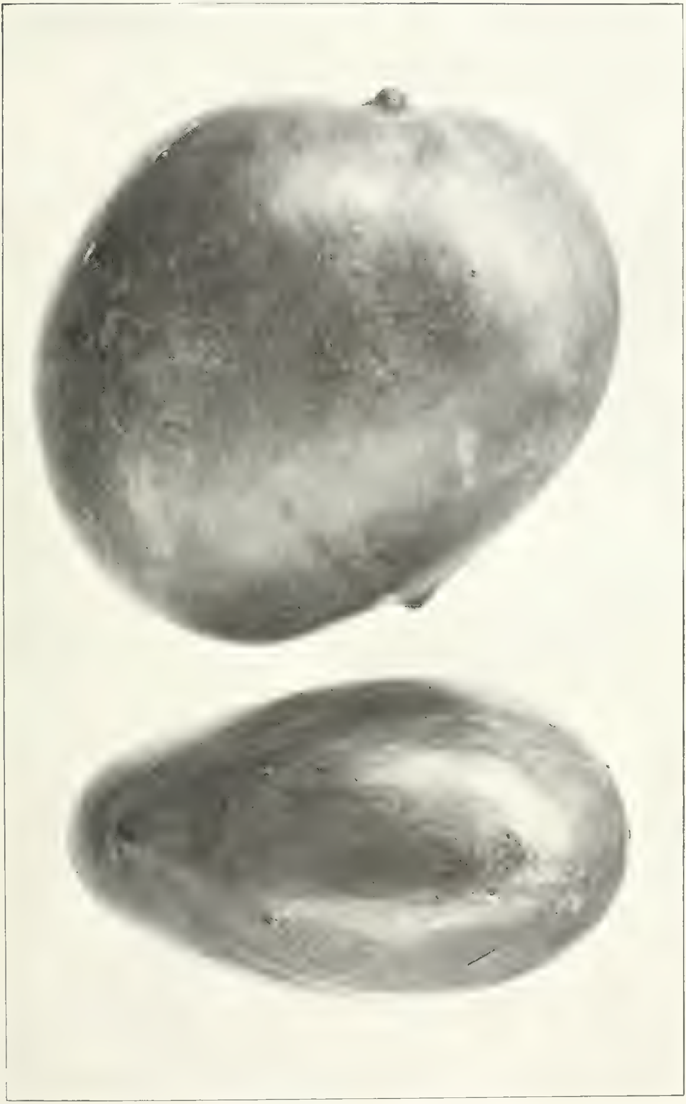
"JOBOS" MANGO FRUITS, SAN JUAN, P. R.



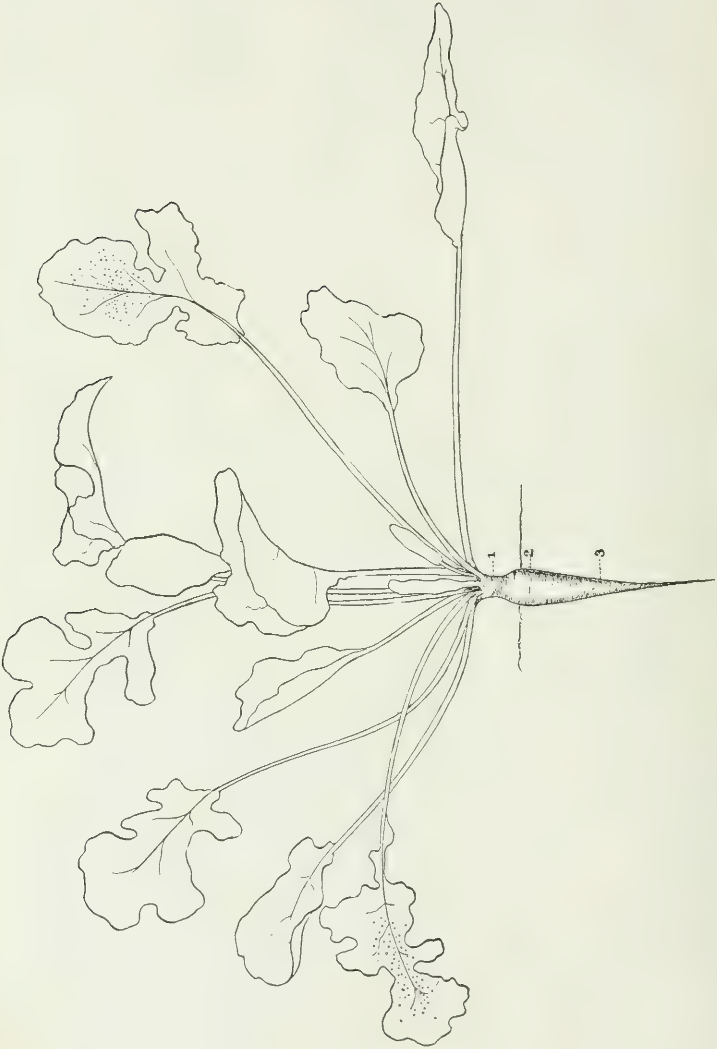
"REDONDO" MANGO FRUITS, PONCE, P. R. (NATURAL SIZE).



"MANILA" MANGO FRUITS, CITY OF MEXICO (NATURAL SIZE).



"CHINA" MANGO FRUITS GUATEMALA CITY (NATURAL SIZE).



TURNIP PLANT, SHOWING INOCULATIONS ON LEAVES AND INDICATING THE PARTS OF THE ROOT FROM WHICH SECTIONS WERE TAKEN FOR THE PHOTOMICROGRAPHS

U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN NO. 29.

B. T. GALLOWAY, *Chief of Bureau.*

THE EFFECT OF BLACK ROT ON TURNIPS:

A SERIES OF PHOTOMICROGRAPHS, ACCOMPANIED BY AN EXPLANATORY TEXT.

BY

ERWIN F. SMITH,
Pathologist, Laboratory of Plant Pathology.
VEGETABLE PATHOLOGICAL AND PHYSIOLOGICAL INVESTIGATIONS.

Issued January 17, 1903.

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WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1903.

LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief,
Washington, D. C., October 7, 1902.

Sir: I have the honor to transmit herewith a technical paper on "The Effect of Black Rot on Turnips: A Series of Photomicrographs, Accompanied by an Explanatory Text," and respectfully recommend that it be published as No. 29 of the series of bulletins of this Bureau. The paper was prepared by Dr. Erwin F. Smith, in charge of the Laboratory of Plant Pathology, Vegetable Pathological and Physiological Investigations, and was submitted by the Pathologist and Physiologist.

Respectfully,

B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

PREFACE.

Dr. Smith's studies of the bacterial organism causing the black or brown rot of turnips dealt with in this paper were begun in September, 1896. In other papers he has discussed the morphology and cultural peculiarities of the parasite and has pointed out methods for limiting the spread of the disease. In this paper he confines his attention to the action of the parasite on the host plant, demonstrating by means of the microscope and camera the ability of the organism to destroy cell walls, and illustrating various stages in the progress of the disease. The paper is timely in that the ability of bacteria to destroy cell walls in living plants is still disputed in many quarters and is a subject left untreated in most of the text-books.

The paper is technical and is designed for the use of investigators in plant pathology.

ALBERT F. WOODS,
Pathologist and Physiologist.

OFFICE OF THE PATHOLOGIST AND PHYSIOLOGIST,
Washington, D. C., October 6, 1902.

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B. P. I.—37. V. P. P. I.—98.

THE EFFECT OF BLACK ROT ON TURNIPS.[a]

INTRODUCTORY

Very few persons would now have the hardihood to deny the existence of plant diseases due to bacteria, but great ignorance still exists respecting this class of diseases, and particularly respecting the capacity of these bacteria for destroying cell walls and making their way, unaided by other organisms, from one part of the plant to another. Even so good a physiologist as H. Marshall Ward, in so recent a book as Disease in Plants (1900), knows nothing about the destruction of cellulose by bacteria, and is inclined to think that, in most cases of "bacterial" disease, fungi act as carriers of the bacteria or forerunners.

The writer has found so much of interest attached to the study of his slides that he is prepared to believe that photographs of them will be of more or less general scientific interest. The behavior of *Pseudomonas campestris* when inoculated into cruciferous plants is not unique, and this particular organism has been selected accidentally, rather than for any special reason, to illustrate what I have to say at this time. The writer possesses alcoholic material of equal interest from many kinds of plants inoculated with various bacteria and a single turnip plant attacked by one organism has been selected for these illustrations, principally because the material proved excellent and appeared to be sufficient for the purpose in hand. The figures will also serve to illustrate how much may be learned from the careful examination of a single specimen.

The following study is purely morphological, and it, of course, raises various questions which can be settled only by the isolation of a cytase. Judging by the time required for cruciferous plants to get into the condition shown in inoculated plant No. 53,[b] the enzymic action on the cell walls must be rather slow, and experimental evidence with the precipitated substances containing the enzyme would probably be less readily obtained than in case of those bacteria which act on the tissues very rapidly. The isolation of the enzyme, and the study of its action were tempting subjects, but the writer's time was very fully occupied with other matters, and the requisite leisure could not be found. This is the less to be regretted, however, since we may confidently expect this phase of the subject to be treated very fully and satisfactorily in the forthcoming papers of Jones and Potter.[a]

---

[a] This disease is also called brown rot.

[b] The plant from which sections were cut for nearly all of these illustrations.

GENERAL CONSIDERATIONS.

So far as I can determine from sections, *Ps. campestris* is capable not only of destroying the middle lamella, but also of dissolving the cell wall proper. This it does slowly. At first I thought that I detected a swelling of the walls prior to their disappearance, but subsequent comparative measurements of the walls supposed to be swollen with normal walls left me in doubt. Fresh material, which has not been examined to this end, might give a very different result. That the solution of the cell walls is progressive is shown by the fact that many of the walls still remaining in the bacterial masses are only one-third to one-fourth as thick as the walls of adjacent uninjured cells. In certain cases where the bacterial mass lies up against the wall of a cell on one side and not on the other, there has been a distinct thinning of the wall on the side next to the bacteria. The difficulty of making exact determinations is increased by the considerable variability in thickness of the walls in the normal parts of the plant.

Russow's cellulose test gave very distinct pictures of the gradual solution and final disappearance of the cell wall. The uninjured cell walls gave a blue reaction, those in process of solution stained feebly or not at all. Sections were also stained in carbol fuchsin, picro-nigrosin, iron hæmatoxylin, and Fleming's triple stain. The vessels of the root are distinguished very readily from the other parts of the root by the safranin of the triple stain, which picks out the lignified reticulations. The bacteria are stained well by carbol fuchsin, by iron hæmatoxylin, and by nigrosin.

The closed bacterial cavities in this root vary in size from openings involving only two or three adjacent cells to spaces formed by the destruction of hundreds, even thousands, of cells. They are full of bacteria when not so exposed that the latter have diffused out into the alcohol.

In many cases parenchyma cells are squeezed together from without and the bacteria do not enter them until they are crushed out of all semblance to cells, but in other cases cells which seem to belong to the parenchyma are filled relatively early without being crushed. These are generally nonlignified wood cells bordering on or lying in the vicinity of the vascular bundles. Probably the organisms bore their way through the cell wall in the manner described by Potter, but the writer has never been able to make out clearly any such penetration.

---

[a] Since this was written Mr. Potter's paper has been published. He finds that individual bacteria of *Ps. destructans* bore small holes through membranes previously softened by an enzyme, and in this way enter the cells. Such observations are of course enormously complicated by the minuteness and abundance of the bacteria, and one must be on guard against appearances, which are often deceptive, particularly with dry lenses. Potter's statements, however, are positive, and are based on a number of observations with both fresh and fixed stained material, so that for the present, and so far at least as regards the species in question, we may accept his statements as substantially correct. They will probably soon be verified or contradicted by other observers.

The writer will be pleased at any time to show the slides from which these photographs were made to anyone who is interested, and in exceptional cases will mail slides, or material from which sections may be cut, to those who are particularly interested, this especially because all reproductive processes are imperfect, the gelatin prints being inferior to the negatives and the latter to the microscopic image of the sections. Most of the sections were cut and the photographs made early in 1901, but other work got in the way and delayed the completion of the paper. Most of the negatives were, however, exhibited in the form of lantern slides at several places early in 1901, e. g., University of Michigan, Michigan Agricultural College, The Botanical Seminar of Washington, and the substance of the paper was presented before the Society for Plant Morphology and Physiology at its fifth annual meeting in New York, December 30, 1901, where the lantern slides were again exhibited.

The following statements will be made plainer by a brief account of the structure of the turnip root. As may be seen from Pls. II and III, the basal and swollen part of the turnip root consists of a small pith, a large cylinder of xylem, a narrow cambium cylinder, and a phloem cylinder, beyond which is a cylinder of cortical parenchyma surrounded by cork. In other words, the structure is that of many dicotyledonous stems. The upper part of the root has a larger pith and better differentiated medullary rays. The xylem part of the root contains much wood parenchyma, which is not always easily distinguishable from the medullary rays. The only lignified parts are the reticulations in the vessels. These stain a bright pink with safranin and come out quite distinct from the surrounding wood parenchyma in many of the photographs.

PLANT FURNISHING THE CULTURES.

On Pl. I, fig. 1, is shown the cross section of a turnip root, the interior of which has been destroyed by the bacterium of the brown rot, *Pseudomonas campestris* (Pammel) Smith. This root was collected in September, 1896, from a field near Baltimore.

Turnips attacked by brown rot often live for a long time, but the diseased root does not enlarge much radially. This one, like many others observed by the writer, had the form of a carrot root rather than that of a turnip root, although it was several months old. The walls of the cavities in such roots are usually black or brown, and hence the common name. Frequently there is no external indication of the cavity. For a painting in perspective of such a root see Centralblatt für Bakteriologie, 2 Abt., III Bd., Pl. VI, fig. 1.

THE METHOD OF INOCULATION, ETC.

On the frontispiece will be found a diagrammatic representation of a turnip plant inoculated with a pure culture of *Pseudomonas campestris.* This figure is intended to represent plant No. 53, which was inoculated on the blades of two leaves by means of delicate needle punctures. The plant was then some weeks old and about 9 or 10 or possibly 12 inches high. The material used for inoculation consisted of a well clouded, moderately turbid bouillon culture (eleven days old), which had been used for control in thermal-death point experiments, and which was just beginning to throw down a small amount of yellow precipitate. In other words, the culture was still in active growth and in excellent condition for purposes of inoculation. The original source of the organism was the interior of a turnip such as that which furnished the cross section shown on Pl. I, fig. 1. The inoculations were made in the following manner: Selecting two leaves five or six removes from the lowest leaf, some of the germ-laden fluid was first removed from the tube on the end of a sterile platinum loop and placed on the clean surface of the leaf blades, and then from 75 to 100 delicate pricks were made through this fluid into the leaf, by means of a fine-pointed steel needle, which was passed through the flame before and after use on each plant. Finally, a fresh loop of the bacterial liquid was lifted out of the tube and spread over these punctures. The punctures of themselves did not do the plant any serious injury. The inoculated leaves were covered for an hour or two after the punctures by means of clean white paper—i. e., until sunset. This was done partly to avoid insolation and partly to prevent a too rapid evaporation of the fluid from the surface of the leaf. The leaf surfaces were not sterilized before inoculation for three reasons: (1) Because it was desired to have the inoculations made under conditions simulating as nearly as possible those occurring naturally; (2) because numerous experiments had already shown that with a proper selection of plants such as those used for this series of inoculations, needle punctures unaccompanied by bacteria did not lead to disease; (3) because exposure of the delicate leaves to mercuric chloride or other strong germicides for a time sufficient to destroy all surface spores would, probably, in spite of subsequent washings, have left enough poison on the leaves to inhibit the growth of the parasite, if not to seriously injure the plant. The pricked area on each leaf included perhaps 2 to 3 square centimeters.

SYMPTOMS WHICH RESULTED.

The history of this plant, which was examined nearly every day, is as follows:

December 19, 1896.—Plant inoculated.

December 28.—A slight yellowing of part of the pricked areas.

December 30.—Yellowing and wilt over the whole of the pricked area on one leaf and over one-fourth of the pricked area on the other leaf.

January 2, 1897.—A marked progress of the disease on each leaf. The wilt now involves from 5 to 8 square centimeters on each leaf, and has run out to the margin of each leaf near the apex.

January 4.—The wilt now involves from 10 to 15 square centimeters on each leaf.

January 8.—The wilt is still confined to the two inoculated leaves, about 30 square centimeters on each leaf blade being involved. The advancing part of the diseased area is dull green and flabby. The brown veining on these leaves is not nearly so conspicuous as in the cabbage and kale plants which were inoculated at the same time and from the same cultures.

January 16 (28th day).—Up to this time there have been no constitutional symptoms—that is, no leaves have shown symptoms except those which were inoculated.

February 9 (52d day).—This plant is now badly dwarfed and the top is dying. The four large outer leaves which remain have shriveled nearly to their base, and the bundles in the base of the petioles are plainly blackened. One small leaf is now wilting and shows a distinct blackening of its veins. One other small upper leaf is still green and normal in appearance. This leaf is but slightly developed.

The plant was now pulled up and examined. The rootlets were sound. The main root axis, which was about 3 inches long and one-half inch in diameter in the largest part, was smooth, white, and sound externally. The root was now washed and inspected critically. A most careful examination of the surface of the root gave no indication as to the cause of the disease. The root was then cut open crosswise in three places, namely, at the top, in the middle swollen part, and at the base of the swollen part. In the upper cut, which was made about one-eighth inch under the crown of leaves, the bundles were decidedly black, and many were occupied by the bacteria; there were various small bacterial cavities but no large cavity. In both of the other sections of the root there were small cavities here and there, the affected xylem was pale brown, and in the middle part the whole inner tissue seemed to be softening. The bark part of the root was perfectly sound.

TECHNIQUE EMPLOYED IN STUDY OF DISEASED PLANT.

When examined microscopically, the vessels of some of the bundles were found to be full of bacteria. The vessels of other bundles were free, or filled in part. No fungus threads were present. The root had a turnipy smell when cut. Before putting the specimen into alcohol two tubes of potato were inoculated from the interior. Both yielded a prompt and very abundant growth of the same organism with which the plant had been inoculated fifty-two days before, and no other organism appeared in the tubes. The root remained in strong alcohol for more than four years—i. e., until an opportunity was found for making sections. Portions of it were then placed successively in absolute alcohol, alcohol and chloroform, pure chloroform, cold chloroform containing paraffin, warm chloroform with more paraffin, and finally pure melted paraffin. When thoroughly infiltrated with paraffin they were suitably embedded and cut on the Reinhold-Giltay microtome with a very sharp knife. The sections were floated out and cemented to clean glass slides by means of sterile, distilled water containing one-half per cent of gelatin, freshly prepared. Mild heat was used in straightening out the wrinkles in the sections and the excess of water was removed by setting the slides on end. When dry, the slides were gently warmed until the paraffin was melted, and were then placed in turpentine or xylene until the paraffin had been removed. They were then passed in succession, gently, into Coplin staining jars containing a mixture of turpentine or xylene and absolute alcohol, pure alcohol, graded mixtures of alcohol and water, and finally Ziehl's carbol fuchsin, in which they were allowed to remain from three to five minutes. The excess of stain was removed by leaving the slides in a mixture of equal parts of alcohol and water until the proper differentiation in color had been secured. They were then passed rapidly through graded alcohols into absolute alcohol, and from that into a mixture of alcohol and xylene, into pure xylene, and finally into Canada balsam or Dammar balsam dissolved in xylene. In a very few of the sections here shown, viz, Pl. I, fig. 2, and Pls. II and IV, nigrosin was substituted for carbol fuchsin. A series of sections (cross and longitudinal) from this root were prepared, stained, and studied, and the results obtained are illustrated by means of the accompanying photomicrographs.

The fixing of the root in strong alcohol was considered necessary in order to prevent the bacteria from diffusing out into the fluid. Even 95 per cent alcohol does not entirely prevent diffusion in case the bacterial cavities are large, but does so quite satisfactorily in case of single vessels or small cavities. The knife used for making the sections was very sharp, and did not shove or tear them to any extent, but the strong alcohol in which the material was fixed did, of course, cause more or less twisting and shrinking of the delicate parenchymatous tissues. During the process of hydrating, staining, bleaching, dehydrating, and mounting the cell walls were also occasionally broken and displaced. Observations on the fresh root left no doubt that the vessels were the primary seat of the disease, but the exact limits of the bacterial occupation remained to be determined from properly infiltrated material. This has now been accomplished. The manner of fixing, of infiltrating, and of cutting, and the subsequent fastening to the slide and careful manipulation during the removal of the paraffin, the hydrating, staining, differential bleaching, dehydrating, and mounting processes leaves no doubt whatever that the location of the bacteria in the tissues, as shown in the photomicrographs, is the same as in the fresh root. There has been no tearing of these bacterial masses or shoving or crowding of them into parts of the root where they were not originally present, such as would naturally occur in making sections of living or uninfiltrated material. In some cases the more delicate parts of the root have been broken a little in places, as already mentioned, but only to a slight extent, which in no way interferes with one's judgment as to the effect of the bacteria upon the root. Indeed the process of fixing renders the bacterial layer tougher and less liable to shoving or rupture by the knife than any other part of the root, as may be readily seen from an inspection of my sections. The bacteria in the sections have taken a deep purple stain, and, there being very little ground stain, the individual rods stand out clearly under the oil-immersion lens, much more clearly than in the photomicrographs. The sections are remarkably good, but owing to their thickness (6 μ to 10 μ) a number of layers of bacteria lie one behind the other and seriously interfere with the photographic image. Very likely also a more expert photomicrographer would be able to make more out of the sections than the writer. Attempts were made to cut thinner sections, but the material did not seem well adapted to very thin sections. In those 2–4 μ thick there was so much shoving together and tearing that they could not be used.

SPECIAL ACCOUNT OF THE DISEASED PLANT.

On Pl. II may be seen a cross section of the lower part of the root, magnified 50 times. The section was taken from the point marked "3" on the frontispiece. The bleaching process subsequent to the staining has been carried so far that the root is only slightly stained, except where there is bacterial occupation of the vessels and wood parenchyma. The actual size of this section is indicated by a circle at the bottom of the plate.

The extent of bacterial occupation and disorganization in the interior of the root is very interesting. In one of the cross sections of this root, made higher up than that shown on Pl. II and involving less than one-half the circumference, the writer counted 93 distinct centers of bacterial infection and 15 bacterial cavities, involving in cross section from 50 to 300 cells each. In a cross section from nearly the same level as Pl. II, 146 distinct groups of bacteria were counted in the vessels. In the photograph here reproduced it will be observed that the bacteria are confined to the inner portions of the root, principally to the vessels and the surrounding nonlignified wood parenchyma.

There are no bacterial pockets in the bark part of the root (phloëm and cortical parenchyma), forming the outer 30 to 60 rows of cells. The bacterial foci, of which there are about 130 in this section, are also for the most part at a considerable distance from the center of the root—i. e., in the outer part of the xylem, which, consequently, we may assume either to have been the first portion of the root to become infected or else to have been that part most readily attacked by the organism. The cavities are all or nearly all on the rim of the xylem. There are many infected bundles farther inward in the xylem, but cavities are wanting in that part of the root and are still very small in the outer xylem at this level, and are not clearly visible with this magnification. Farther up the root (Pl. III) the cavities are larger, and only the smaller and medium-sized ones have retained their bacterial contents intact. The sections agree, however, in that the outer part of the xylem has suffered most, and in that all parts external to the cambium are free from infection.

Fig. 2 of Pl. I shows a single small vessel magnified 2,000 times. It is from the inner part of the root and is filled with the bacteria. It corresponds to one of the vessels of Pl. II.

Pl. III is from a cross section in the middle swollen part of the root. (Frontispiece, at point marked "2.") In comparing it with Pl. II, it should be remembered that the magnification is not the same. The actual size of the section is shown on the lower left-hand side of the plate. From the largest cavities the bacteria have diffused out into the alcohol, and only the borders of these cavities are still occupied by the organism. That these open places are also true bacterial cavities and not due to anything else is shown by an inspection of the serial sections, an open cavity in one giving place to a bacterially filled cavity in another, and all being free from fungi and insect injuries. Two of the largest of these full cavities may be seen in the upper part of the picture. On the lower left-hand side of this section is an irregular oblong cavity, which was made by a platinum loop thrust into the tissue to remove some of the organism for cultural purposes.

Pl. IV, fig. 1, represents a cross section taken from the top of the root (frontispiece, point marked "1"), showing transition into stem. The magnification is too small and makes evident much less than the section, but suffices for orientation, and shows that there is no surface wound or large cavity. The pith and the cortical parenchyma are entirely free from the bacteria. Most of the phloëm is also free, but bacteria are present in it at the point marked "Y." Fig. 2 is a detail from the same slide, more highly magnified.

A study of Pls. II, III, and IV, and of corresponding longitudinal sections not here represented, shows that while the vascular system of the plant is very badly infested, the bulk of the tissue is still free from the bacteria; i. e., at least nine-tenths of it, including all of the outer portion of the root which has come into direct contact with the fungi and bacteria of the soil, and which would be more or less rotted if the organism had entered the plant from the earth. If the infection had been from the soil, the root would also have contained a mixture of things and not one species in pure culture, and certainly not *Ps. campestris*, since the soil was not obtained from cabbage fields, and all the numerous uninoculated turnip plants grown in it remained entirely free from this disease.

The following photomicrographs are all made from sections of this root at level No. 2. (See frontispiece and Pl. III.)

Pl. V, fig. 1, represents a longitudinal section through a small bundle fully occupied by the bacteria and deeply stained. The magnification is not sufficient to show the individual organisms, but it can be made out quite clearly that the surrounding parenchyma is not occupied and that there is as yet no disorganization of the tissues. The second figure on this plate is a longitudinal section through two small vascular bundles. The knife passed through the middle of the lower bundle and the extreme margin of the upper one. The tissue around the upper bundle is just becoming hollowed out into a cavity; that around the lower one is still intact and unoccupied by the bacteria. The vessels themselves are crowded full of the organism.

Three of the reproductions on Pl. VI are from cross sections of small bundles, i. e., bundles similar to those illustrated in Pl. V. In the lower right-hand corner is a cross section showing a single vessel occupied by the bacteria, the rest of the tissue being entirely free. In the lower left-hand corner are several vessels so occupied; the larger one, however, contains only a narrow film of bacteria (around the walls), which may have entered from above or below, or at this level, through the side of the vessel next to the more fully occupied part of the bundle. The surrounding tissue here is also entirely free from these organisms. The upper figure on this plate corresponds more nearly to the lower figure on Pl. V. Here several vessels are occupied, together with their connective tissue and the surrounding parenchyma, and we have the first stage in the formation of a bacterial cavity. The left-hand side of this figure is shown more highly magnified on Pl. IX, fig. 1. The middle figures at the left show the manner in which the bacteria crowd apart parenchymatous cells, multiplying first in the intercellular spaces and either dissolving or splitting apart the middle lamella, probably both. The middle figure at the right is a cover glass (smear) of *Ps. campestris* stained with carbol fuchsin and magnified 1,000. It was made directly from the vessels of a cabbage plant and is the only figure not taken from the turnip.

On Pl. VII are two additional figures showing early stages in the occupation of small bundles. Nonlignified wood-parenchyma cells are also occupied, at least in fig. 2. The surrounding tissues are entirely free from bacteria. In both figures the bacterial contents of vessels have fused. This I take to have occurred through natural openings rather than through openings made by the bacteria, because occasionally in cross sections of unoccupied bundles I find reticulations thinning out and disappearing in the same way. In the lower figure a few of the cell walls have been broken and displaced slightly in mounting.

The upper figure on Pl. VIII shows an early stage in the destruction of the parenchyma, the intercellular spaces are occupied by the bacteria, but the cells themselves are still free and have not been wedged apart, as in figs. 4 and 5, Pl. VI. The granular matter in the center of the cells is protoplasmic material. The lower figure shows in cross section a very small vascular bundle. The two reticulated vessels are filled and the bacteria have found their way outside of these into the intercellular spaces which are filled and greatly enlarged, the cells being crowded apart and, in case of one of the lower ones, crushed in. Two or three nonlignified cells are also filled.

Pl. IX shows two stages in the formation of bacterial cavities. In the upper figure there is more or less vagueness in the cell walls, one of which, on the right-hand side, has almost entirely disappeared. This figure shows a single vessel in the center (comparable to fig. 1, Pl. V). The surrounding cells which are so fully occupied by the bacteria are nonlignified wood cells of the fleshy root. In the lower figure there has been a greater softening of tissue and a considerable cavity is in process of formation. Here in the center (from right to left) are at least four vessels, and there is probably a fifth vessel just above the cell marked X. The reader's attention is called particularly to the vagueness of the cell walls and to the open cavity which is shown in the lower middle part and the left-hand part. The whole forms a very instructive and typical picture of the way in which cavities are brought about by the mechanical and solvent action of this organism. The tissue for a long distance around both of these foci is sound and entirely free from bacteria, and, as in the other cases, the bacteria could have entered these bundles only as a result of the leaf inoculations already described.

On Pl. X are shown two figures illustrating a further advance in the destruction of the parenchyma of the root and the formation of bacterial pockets. The cells are separated from each other by masses of bacteria, are crushed in, and are slowly dissolving, their walls becoming vaguer and vaguer until at the middle of the cavity they can not be seen at all. Fine examples of this gradual destruction of the cell walls are to be seen in both of these figures. The reader's attention is called in particular to the right-hand side of the upper figure, showing bacterial occupation of the intercellular spaces which usually precedes the formation of an open cavity. In the upper part of the upper figure, in the last one of the second row of cells at the left, is a fine example of the way the cells are crushed together and loosened from their surroundings. Similar examples may be seen at the bottom of this figure, and in fig. 2. In fig. 2 observe particularly the condition of the cells next above the unoccupied cells marked X, Y, and Z.

The two figures shown in Pl. XI are from the margin of bacterial cavities similar to those shown on Pl. X, but more highly magnified. Here also the cell walls are in all stages of separation and decomposition. In the middle of fig. 1, and at the left side of fig. 2, cell walls may be seen in all stages of solution. In none of these serial sections is there to be found any trace of fungus threads or of insect or other animal devastation, the entire injury being due to an enormous multiplication of the organism which was inoculated into the leaves of the plant, and which found its way into the root through the vascular bundles of the petioles. Part of the injury is plainly mechanical, due to crowding, and part is chemical, due undoubtedly to the solvent action of a cytase. Had the plant been allowed to remain in the soil a few weeks longer, the result must have been the fusing of these various small cavities into one or more large cavities. We should then have had a phenomenon like that shown on Pl. I, fig. 1.

Pl. XII, fig. 1, is from a radial longitudinal section showing cambium and phloem at the right (top) and xylem (wood parenchyma) at the left with cavities close to the cambium. Fig. 2 is a detail from the larger of these cavities taken at the point marked X.

Pl. XIII is a continuation of XII, showing details from the larger cavity taken at the points marked Y and Z. Here again cell walls are crushed and undergoing solutions, and the bacteria are present in incalculable numbers and no other organisms are present. In the upper part of fig. 1, at the right, the bacteria may be seen wedging apart two parenchyma cells. Similar phenomena may be seen in the upper right-hand corner of fig. 2.

RESULTS OF SYNCHRONOUS INOCULATIONS INTO OTHER PLANTS.

At the same time and from the same culture as turnip No. 53 twenty-eight other plants were inoculated as follows: Four rape, 6 radish, 6 cabbage, 5 kale, 3 turnip, and four Roman hyacinth. Twenty-three of the 28 plants contracted the disease, as follows: Four rape—1 plant became diseased constitutionally, 3 showed only local symptoms; 5 radish—3 developed constitutional symptoms, 2 local symptoms only; 6 cabbage—all 6 developed constitutional symptons, and No. 42 was illustrated in 1897 in 2te Abt., Centralblatt f. Bakt. (III Bd., Taf. VI, fig. 5), and in the same journal in 1901 (VII Bd., Taf. VIII and IX); 5 kale—3 developed constitutional symptoms, 2 only local symptoms; 3 turnips—1 developed only local symptoms, the others showed also constitutional symptoms. The hyacinths did not become diseased.

DESCRIPTION OF PLATES.

FRONTISPIECE.—Turnip plant No. 53, showing place of inoculation (on leaves) and indicating by figures the part of root from which sections were taken for the photomicrographs. Diagrammatic. The illustrations were all made from the root of plant No. 53, except fig. 1, Pl. I, from another turnip, and fig. 6, Pl. VI, which was made from a cabbage plant attacked by the same disease.

PLATE I. Fig. 1.—Cross section of turnip plant, showing bacterial cavity. Natural infection. From a field near Baltimore. Zeiss planar. x 4½ circa. Fig. 2.—Single vessel from Pl. II, showing bacterial occupation. Stained with nigrosin. x 2000.

II. Cross section of lower part of the root (Frontispiece, 3), differentially stained with safranin and picro-nigrosin to bring out location of the bacteria. x 50.

III. Cross section of a part of the middle portion of the root (Frontispiece, 2), differentially stained with carbol fuchsin, showing numerous bacterial cavities. x 15.

IV. Fig. 1.—Cross section, extreme upper portion of the root (Frontispiece at point marked 1), differentially stained. Zeiss, 70 mm. x 23. Fig. 2.—Detail from the same section (at X) more highly magnified. Zeiss, 16 mm. x 185.

V. Fig. 1.—Longitudinal section in middle of root (Frontispiece, 2) showing reticulated vessels filled with the bacteria and surrounding tissue free from infection. x 154. Fig. 2.—Longitudinal section from same level as Fig. 1, showing vessels filled with the *Pseudomonas*, and a cavity around the upper bundle. x 136.

VI. Fig. 1.—Cross section, middle of root, differentially stained, showing a single vessel packed with the bacteria. This may be compared with fig. 1, Pl. V. x 520. Fig. 2.—Cross section from same portion of the root differentially stained, showing a small bundle partly occupied by the *Pseudomonas*. The larger vessel contains only a rim of bacteria. The surrounding tissue is free from bacteria. x 460. Fig. 3.—Cross section, middle of root, differentially stained, showing vessels and nonlignified wood parenchyma occupied by the bacteria. In the middle portion the cells have begun to disorganize and a bacterial cavity is in process of formation. x 385. Figs. 4 and 5.—Bacteria separating cell walls. x 1000. Fig. 6.—*Ps. campestris*. Smear preparation from a cabbage stem, stained with carbol fuchsin. x 1000.

VII. Figs. 1 and 2.—Cross sections, middle of root, differentially stained, showing small bundles very fully occupied by the *Pseudomonas*. Fig. 1 x 475. Fig. 2 x 470.

VIII. Fig. 1.—Cross section, middle of root, differentially stained, showing parenchyma cells with bacteria multiplying in their intercellular spaces. The cell cavities are free. x 1000. Fig. 2.—Cross section, middle of root, differentially stained, showing disorganization of a small bundle. x 1000.

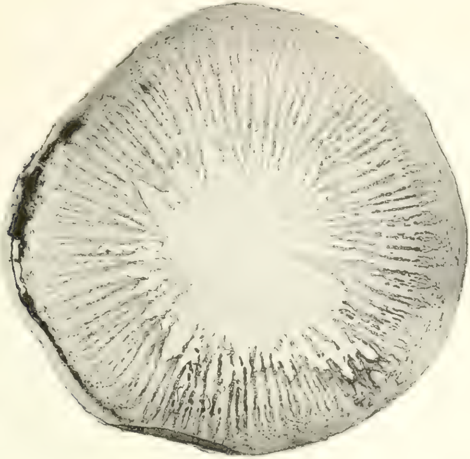
IX. Figs. 1 and 2.—Cross sections, middle of root, differentially stained, showing formation of bacterial cavities. Zeiss apochromatic 3 mm. oil immersion objective 1.40 N. A. and compensating ocular No. 4. Cramer's slow isochromatic plates, Zettnow's color screen, with sunlight. x 1000.

X. Figs. 1 and 2.—Cross sections, middle of root, differentially stained, showing well developed, small cavities filled with the *Pseudomonas* and with remnants of the disorganized cells, the latter conspicuous only on the margins of the cavity. x 340.

XI. Figs. 1 and 2.—Cross sections, middle of root, differentially stained, showing margins of cavities with cell walls in all stages of solution. x 1000.

XII. Fig. 1.—Radial longitudinal section, middle of root, differentially stained, showing one large cavity and several small ones. Bark part of root at right-hand side. x 85. Fig. 2.—Detail from upper left-hand corner (X) of fig. 1. x 475.

XIII. Details from fig. 1, Pl. XII, showing various stages in the separation and solution of cell walls. Fig. 1 is from XII, 1, Y. Fig. 2 is from XII, 1, Z. x 475.



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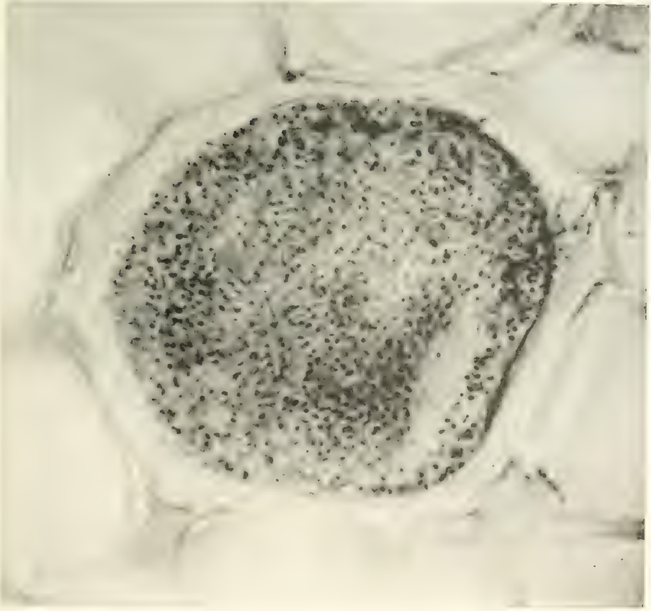
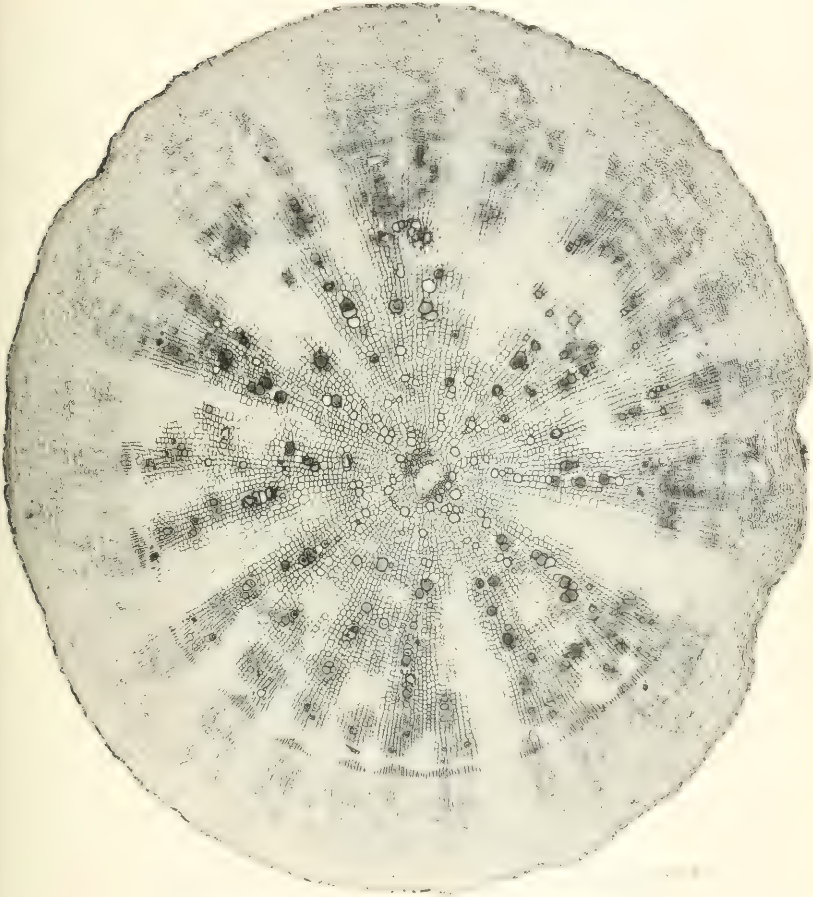


2

BROWN ROT OF THE TURNIP.

PSEUDOMONAS CAMPESTRIS (PAMMEL) SMITH.

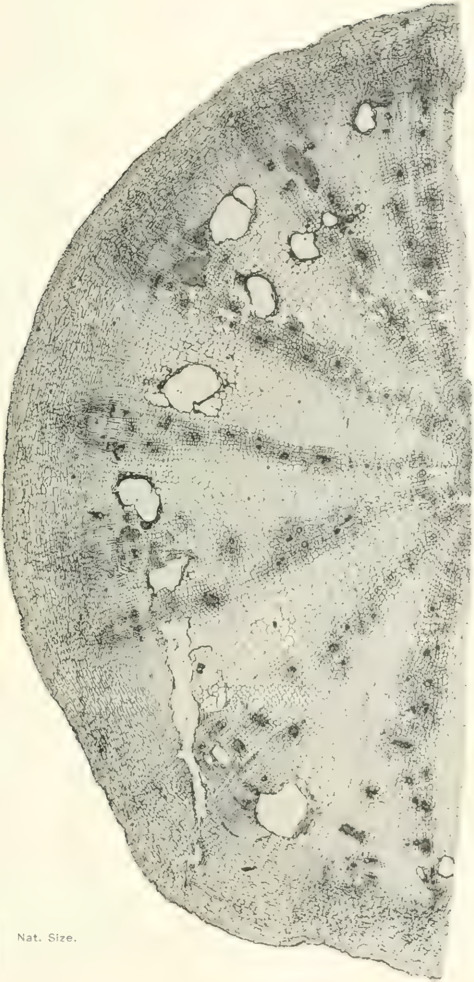
HELIOTYPE CO., BOSTON.



BROWN ROT OF THE TURNIP

PSEUDOMONAS CAMPESTRIS (PAMMEL) SMITH

HELIOTYPE CO., BOSTON.

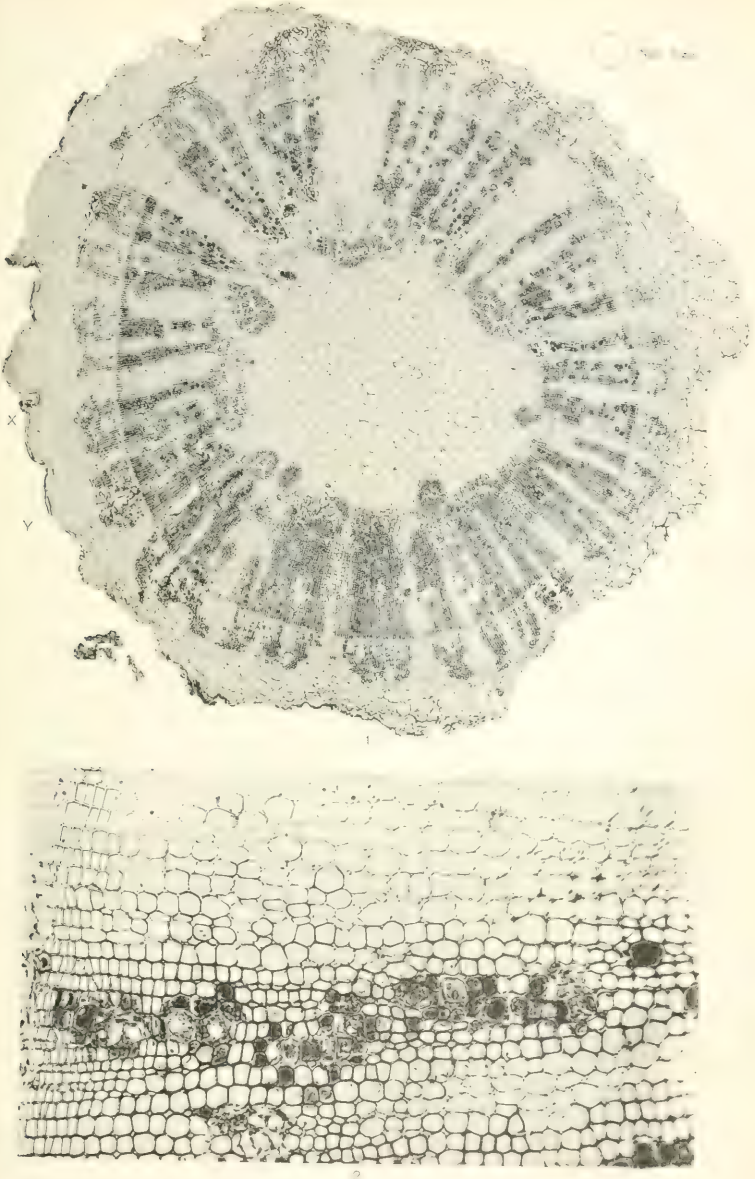


Nat. Size.

BROWN ROT OF THE TURNIP.

PSEUDOMONAS CAMPESTRIS (PAMMEL) SMITH.

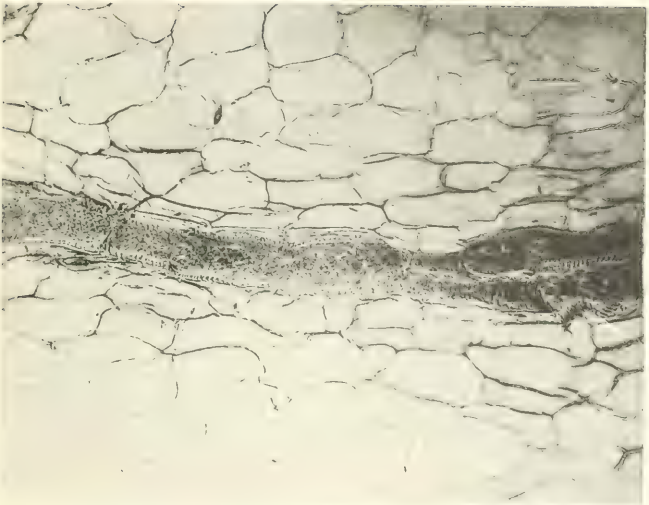
PLATE IV.

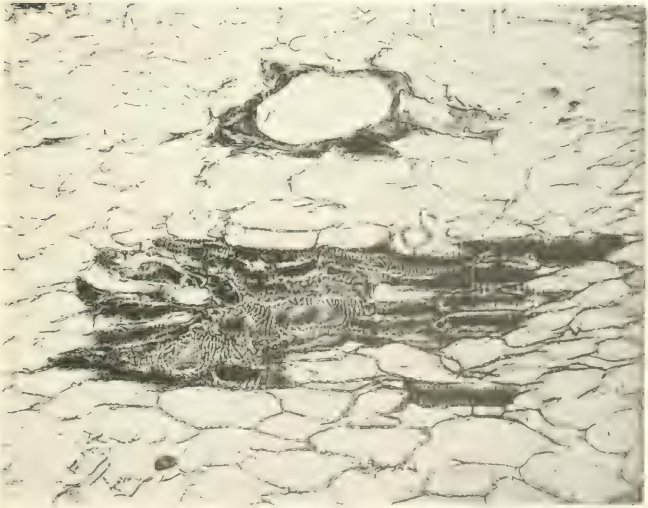


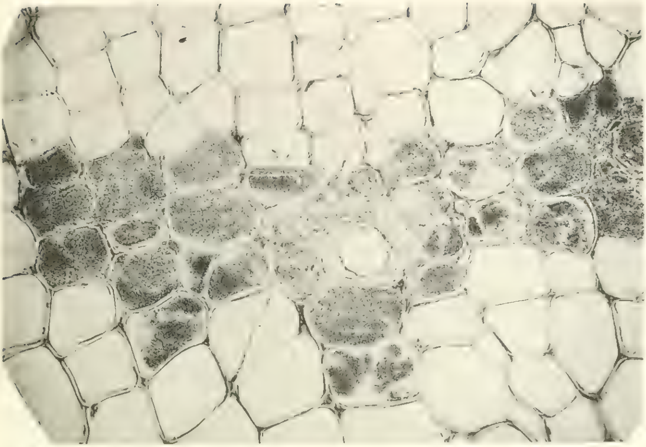
BROWN ROT OF THE TURNIP.

PSEUDOMONAS CAMPESTRIS (PAMMEL) SMITH.

HELIOTYPE CO., BOSTON.







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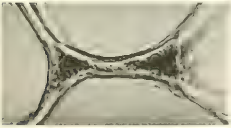

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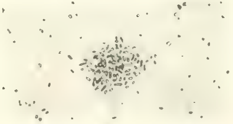

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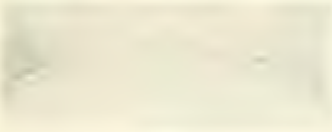

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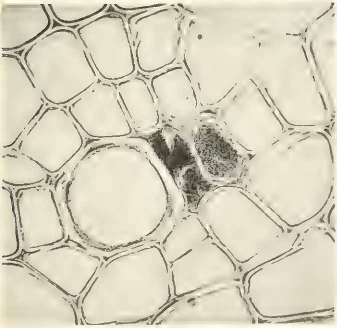

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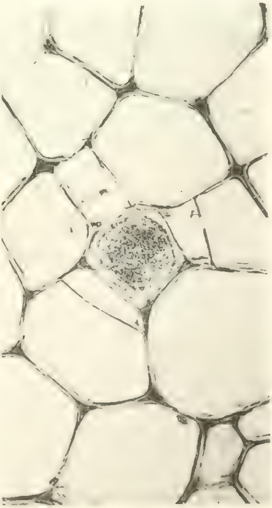
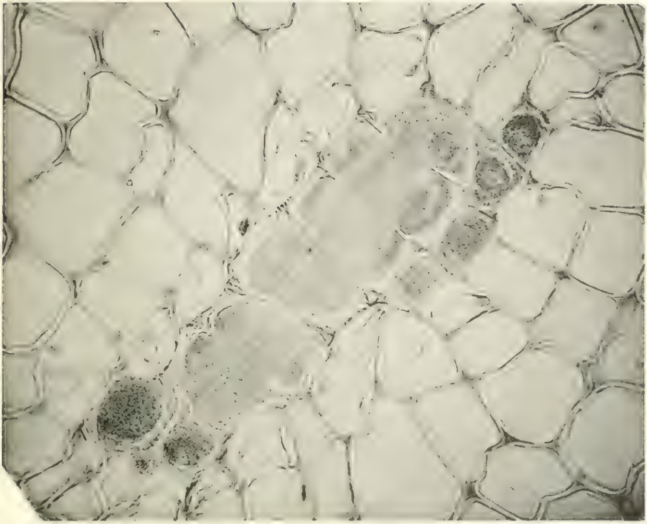
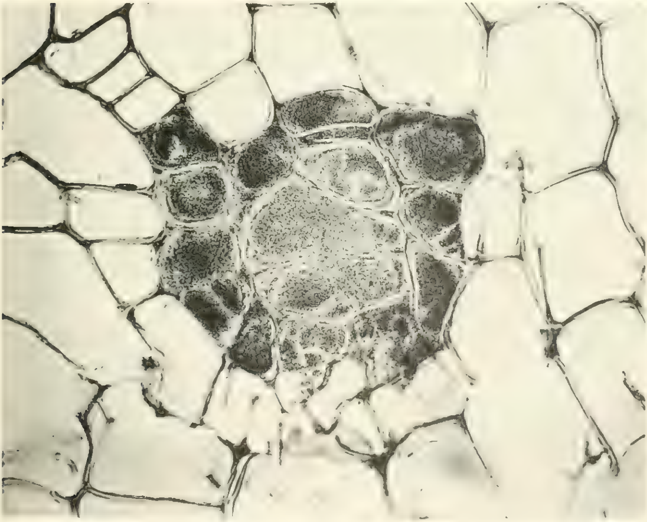


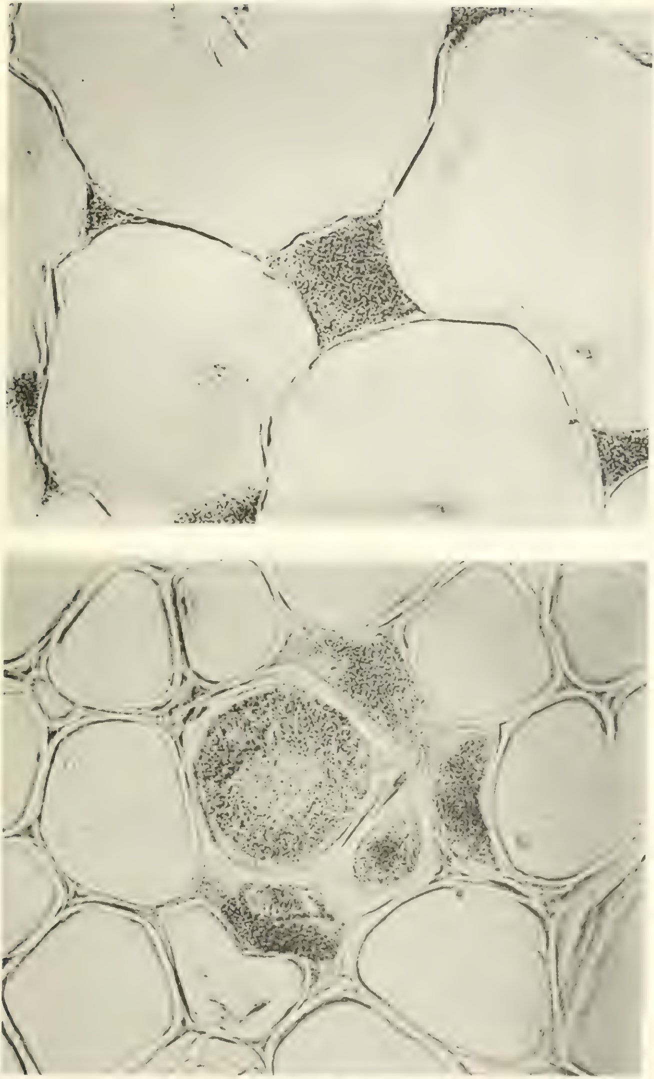
1

BROWN ROT OF THE TURNIP.

PSEUDOMONAS CAMPESTRIS (PAMMEL) SMITH.







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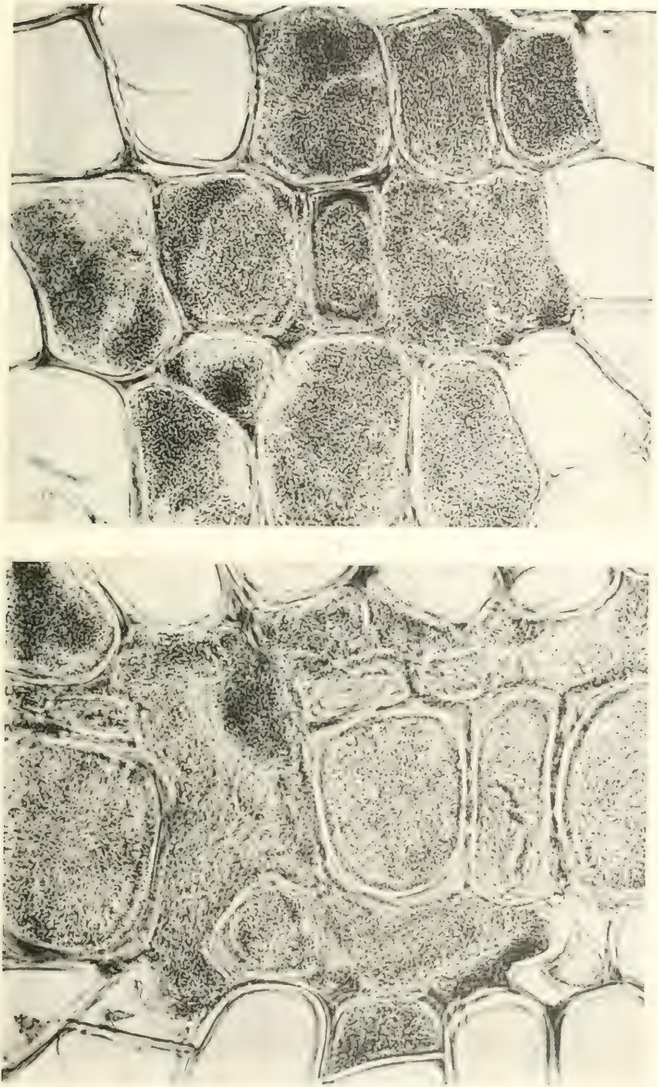

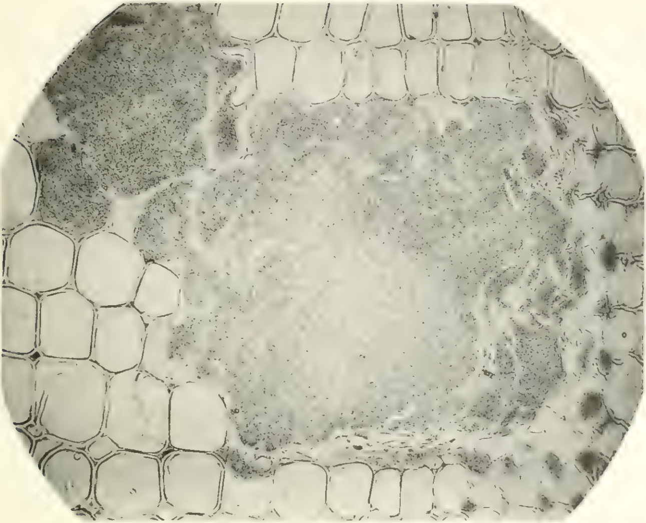

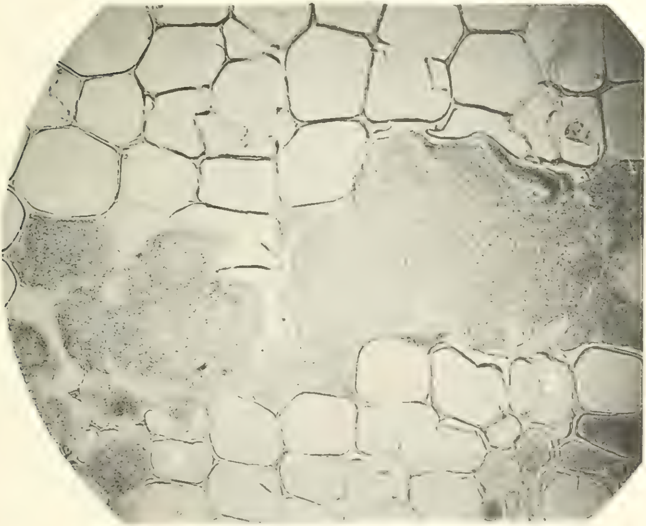

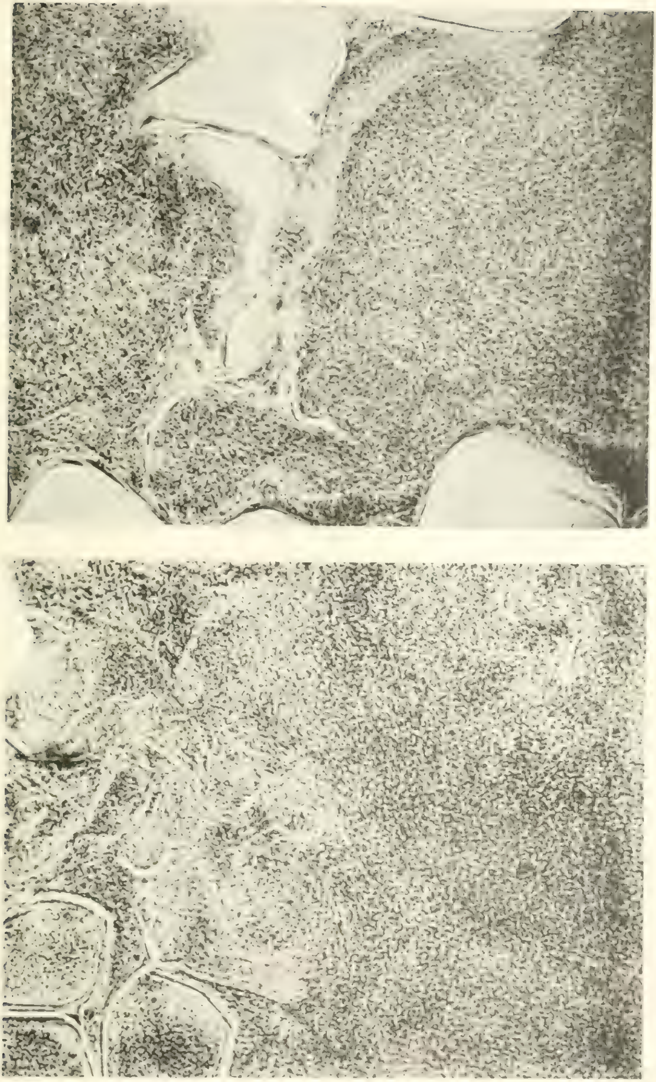

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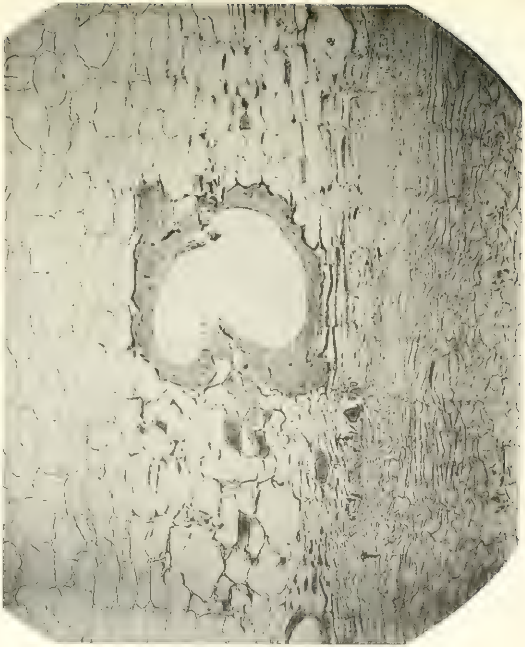

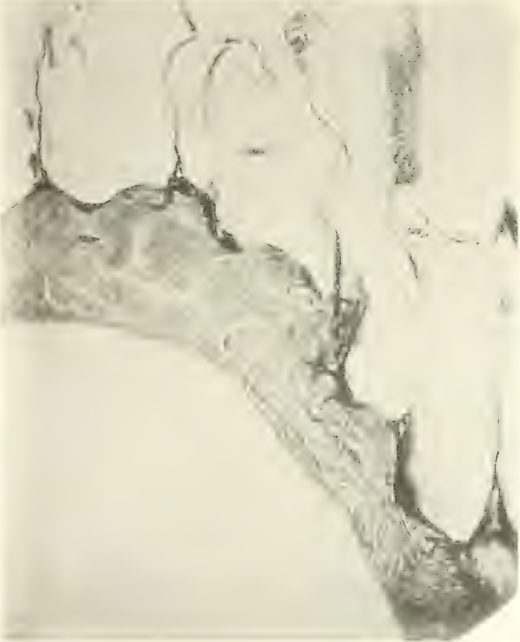

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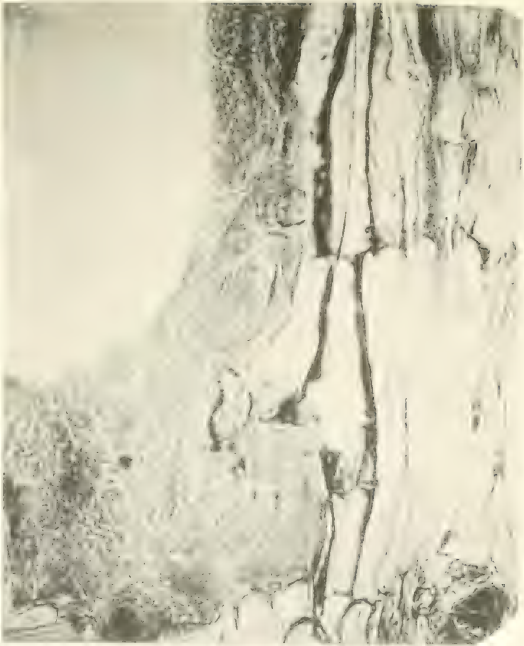

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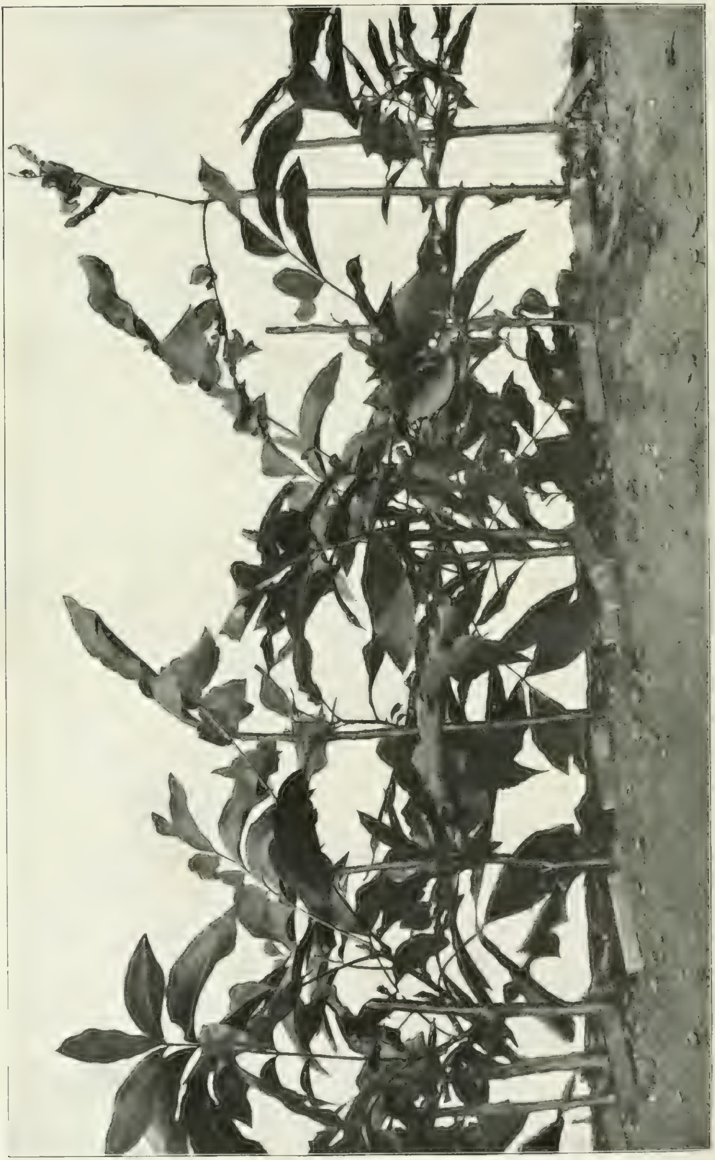
BROWN ROT OF THE TURNIP.

PSEUDOMONAS CAMPESTRIS (PAMMEL) SMITH.



SEEDLING PECANS BUDDED BY NEW METHOD.

U. S. DEPARTMENT OF AGRICULTURE.

BUREAU OF PLANT INDUSTRY—BULLETIN NO. 30.

B. T. GALLOWAY, *Chief of Bureau.*

BUDDING THE PECAN.

BY

GEORGE W. OLIVER, Expert.

SEED AND PLANT INTRODUCTION AND DISTRIBUTION.

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LETTER OF TRANSMITTAL.

U. S. Department of Agriculture,
Bureau of Plant Industry,
Office of the Chief,
Washington, D. C., October 15, 1902.

Sir: I have the honor to transmit herewith a paper by Mr. George W. Oliver, Expert in the Office of Seed and Plant Introduction and Distribution, on "Budding the Pecan." Owing to the increased interest in nut culture in this country Mr. Oliver's method of rapidly propagating the pecan by budding is worthy of careful attention, and I respectfully recommend that the paper be published as a bulletin of the regular series of this Bureau.

Respectfully,

B. T. Galloway,
Chief of Bureau.

Hon. James Wilson,
Secretary of Agriculture.

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BUDDING THE PECAN.

DIFFICULTIES ENCOUNTERED IN PECAN BUDDING.

The propagation of the pecan has hitherto been one of the principal drawbacks to the successful cultivation of this nut tree. According to the published experiences of growers who have given attention to propagation by budding and grafting, the percentage of successful unions in the total number of plants worked has been small. Although the young budded or grafted trees are sold at very high prices, the work is unremunerative from the nurseryman's point of view. Much of the work of pecan propagation has doubtless been along similar lines to those favorable to the propagation of well-understood subjects, such as the apple, peach, and other fruit trees. Consequently the pecan has earned the reputation of being difficult to work on stocks of the same or allied species. This is not to be wondered at, as mistakes are very easily made in the selection of working material, time of operating, etc. The writer is convinced, however, that if budding be performed as herein described the pecan will reward the careful operator with a high percentage of unions.

The principal trouble encountered in pecan budding is undoubtedly due to the selection of wrong material from the tree to be propagated. By the methods usually adopted a success not above the average was attained, and it is easy to understand why small trees budded from choice varieties can not be sold at less than from $1 to $3 each. By the use of a method which has been devised for budding the pecan and the selection of 1-year-old buds the outlook is good for very successful propagation. It will be seen where some of the trouble lies if the budding of the peach is compared with that of the pecan. In the case of the former a shoot of the current year's growth will by the latter part of August give a very large number of buds which can be worked successfully. This is not the case with the pecan. True, a number of likely looking buds are formed on a shoot of the current season, but by the method of budding in use at present not many of the buds on a shoot are used. Two or three at the base are generally selected, but, as will be explained later, there is great danger of unsatisfactory results through using even the best of these buds.

WHY THE PECAN SHOULD BE BUDDED.

In the pecan region of the Southern States there are at least fifty named varieties, nearly all of which are well worthy of perpetuation on account of the large size and fine flavor of the nuts. These choice varieties of the pecan are as yet but little known, owing to the very small number of trees in cultivation. In the course of time, however, as they are more widely grown, they will become the most prized of all the nuts for domestic use, and it is probable that when the supply is large enough they will be preferred abroad to the best Persian walnuts. The nuts of the choicer varieties of pecan, owing to the supposed difficulty of bud propagation, are much in demand at fancy prices for the purpose of raising young plants. It has been ascertained, however, that seedlings from nuts of the choice varieties do not come true, resembling in this particular many of our popular fruit trees. Many of these seedling pecans bear nuts not much superior to the common wild forms. With the knowledge now acquired as to the liability of varieties to vary in their seedlings through the agency of cross fertilization, it would indeed be remarkable were the seedlings to produce nuts equal in size and flavor to those of the mother tree. The chance trees which bear large nuts are found wild in widely different parts of the South. The nuts from these trees are much above the average not only in point of size, but also on account of other desirable qualities. Being peculiarly situated, and as they can not depend wholly upon their own pollen to aid in the reproduction from seed, there is nothing to prevent pollen from undesirable forms gaining access to the pistillate flowers, thus securing a reduction of the size or a decrease in the flavor of the nuts borne by the seedlings. After waiting several years for the seedling trees to bear, this naturally causes the grower a good deal of disappointment. So, necessarily, as with apples, peaches, and other fruits, the only way in which the choice varieties of the pecan can with certainty be perpetuated in a manner to permit of being handled by dealers, is by budding or grafting on seedling stocks.

RAISING SEEDLING STOCKS.

Up to the present time it has not been demonstrated that there is a better stock for the reception of buds or grafts of the pecan than seedling stocks of the same species. In raising pecan seedlings for stocks it is advisable to select seeds from trees at the northern limit of the pecan belt, because, while seedlings from that section will thrive throughout the belt, those from the extreme south can not be expected to prove as hardy and thrifty at the northern limit as those trees which are growing wild in that section.

The seed nuts should be secured as early as possible after they are ripe, so as to make certain of preventing loss through drying out.

Stratification should be begun late in the fall. For this purpose it is most convenient to use boxes, say, 3 feet long, 1 foot wide, and 3 inches deep. A mixture of sand and ashes in about equal proportions is a good medium in which to imbed the nuts. A layer of this material 1 inch thick should be placed in the bottom of a box, then a layer of pecans as close together as possible. It is not advisable to put more than a single layer in a box, because of the brittle nature of the root, the nuts being somewhat irregular in sprouting. Each box is then filled with the sand and ashes, and all the boxes used should be piled together to a convenient height. They should occupy a sheltered position out of doors, and be covered with a considerable thickness of straw, mats, or old sacking until the nuts show signs of germinating, which will usually occur toward the end of April. To give facilities for inserting the buds on the north side of the seedling stocks, the nuts are then planted in rows running east and west. The rows should be 3 feet apart and the nuts placed 5 inches apart in the row. It is not possible the first season to raise seedlings which are large enough to be used as stocks, but in order to secure a good, stout growth, so as to have them large enough for working the second season, the soil should be deeply worked with a plow, rolled and, when necessary, harrowed several times until it is well pulverized. The remaining part of the work must be done by hand.

The position to be occupied by the seedlings is marked by the aid of a stick with a notch cut in one end. This is run along the line, leaving a well-defined mark in the soil. With a spade a trench is dug about 5 inches deep. In the bottom of the trench about 2 inches of equal parts of leaf soil and sand are placed. The nuts are carefully laid on this. In planting those which have the root developed to a length of more than 1 inch, a hole is made in the soil with the fingers and the root placed in it. If the soil be dry, water is given. Fine soil is then raked level over the nuts and slightly firmed with the end of the rake. The operation is finished by a mulch of 1 inch half-rotted leaves, cut cornstalks, or other material. This prevents baking of the soil after rains and supplies a surface which is easily pierced by the sprouts. The nuts thus treated should germinate very evenly, and at the close of the first season should show a stem above ground of about 12 inches in length. Many of the seedlings will attain a thickness of three-eighths of an inch close to the ground. The taproot will average fully 2½ feet in length and will be supplied with quite a number of very small fibrous roots. By the middle of the following June the seedlings will average over half an inch in diameter near the ground, making excellent stocks for budding.

SELECTION OF DORMANT BUDS.

After a series of trials with buds of the current season's growth and those of the preceding season, none but those which were formed during the season preceding the operation of budding are recommended for use. The dormant buds (Pl. I, fig. 1, A) during the month of June are ready to burst into active growth when given the slightest encouragement. Moreover, they can be very easily removed from the bud stick, together with a section of thick, solid bark. The bark on the old wood can be handled without being injured in any way, and it is in every particular splendidly adapted for successful work. After the union has taken place and the stocks are cut back, the bud will give a stronger growth and attain a greater length than growths from the current season's buds. In using buds from the current season's wood (Pl. I, fig. 1, B) many difficulties will be encountered, and the results will be found disappointing. Until the season is pretty well advanced the current year's bark is very thin and more or less succulent, and it can not be removed from the wood without being bruised. Sometimes, even when the greatest care is exercised by the operator, it will split lengthwise and be rendered useless. Again, especially up to the latter part of July, the cuticle is very apt to peel, and where it does stay on it is almost certain to be bruised in the operation of tying. Another serious objection is the presence of the leaf stalk. This, shortly after the bud is inserted, will shrivel up and fall, or it can easily be detached; but the scar left, which in most cases is a large one, is, it is thought, the channel through which a large part of the sap of the bark is lost before it has had an opportunity to unite with the cambium of the stock.

LOCATION OF THE BUDS.

It is important that the position which the dormant buds occupy on the branches be accurately understood, so that the proper ones may be selected for the work of budding. They are to be found on the branches made the year preceding that in which it is desired to insert the buds. The pecan trees which have been examined in the vicinity of Washington show exceedingly few growths from terminal buds. The growth of a season starts from one of the large axillary buds near the apex of the preceding year's growth (Pl. I, fig. 2, A). Two or more of these buds may produce growths, but commonly only one. In fruiting branches the nut cluster takes the place of the terminal bud on the young wood, as seen in Pl. II, fig. 1. The strong shoots from these axillary buds when 1 year old are the ones which give good material for budding. Each bud will be found immediately above a leaf scar of the preceding season (Pl. I, fig. 1, A). Those buds which are nearest the base of the shoot are the smallest and firmest; consequently they are the best fitted for the work. Regarding the period during which buds retain their power of bursting into active growth, Pl. II, fig. 2, shows a 7-year-old branch of an allied species of hickory (*Hicoria laciniosa*) with three small growths from dormant buds made during the present season, together with a bud quite dormant and evidently able to persist for some time. In the selection of bud wood it is preferable to cut the branches from the tree to be propagated in the early part of the day, choosing shoots as large in diameter as possible and those which show the greatest number of short, plump buds. Immediately on severing the branches from the tree the growth of the current season is severed and discarded, and the 1-year-old bud sticks are wrapped in dampened newspapers. If necessary, they can in this manner be kept for several days without danger of drying out.

EXPERIMENTS WITH BUDS OF THE CURRENT SEASON.

In a recent series of budding experiments with the current season's buds the work began June 6. The buds selected were principally the small, plump ones found at the base of the soft wood (Pl. I, fig. 1, B). At that date the buds were slightly immature; consequently, when a large section of bark was removed from the wood it showed signs of injury. The cuticle peeled easily, and even with great care in removing buds with sections of bark attached and in placing and tying them in position, the percentage of unions was small. Up to the end of July separate lots of the current year's buds were worked at intervals of one week, the percentage of unions increasing slightly with each week. Patch budding (Pl. III, fig. 1), which is merely a modification of annular budding, was the method used. Taking everything into consideration, the results obtained could by no means be considered satisfactory.

AN IMPROVED METHOD OF BUDDING.

An improved method, which has been demonstrated to be a perfect way in which to bud the pecan and one by the use of which there are very few failures, is as follows: For the reception of the bud make two transverse cuts in the bark of the seedling stock (Pl. III, fig. 2) a few inches above the ground line, these two cuts, about 1 inch apart, to be connected by a longitudinal incision. The bark at each side of the longitudinal cut is then raised far enough (Pl. III, fig. 3) to admit of the insertion of the section of bark on which the bud is situated (Pl. III, fig. 2, A). The rectangular section of bark when prepared for insertion must be of exactly the same length as the cut in the stock. It is taken from the stick of buds by making two transverse cuts through the bark at equal distances from the bud. Two longitudinal cuts are then made through the bark, leaving the bud in the center of the patch, which should be a little over 1 inch long and five-eighths of an inch wide. The patch must be raised carefully from the bud stick to guard against breaking and with as little bending during the operation as possible. When the operator finds that he does not succeed at the first trial, it will be advisable to practice for a time on wood which is of no value. The stick of buds should be grasped firmly in the left hand, with the knife held by the fingers of the right, the thumb resting on the bud stick. Insert the point of the knife at one end of one of the longitudinal cuts, pressing the blade toward the thumb; this pressure will start the bark. Next insert the end of the handle of the knife, gradually removing the section. The patch is prepared for insertion by first cutting the two ends as straight as possible, using a very sharp knife. The outer bark at the sides (Pl. III, fig. 2, A) is then shaved off, so that the edges will make a perfect fit when under the bark of the stock (Pl. IV, fig. 1). When the bud is securely in place, the two wings of bark on the stock are bound firmly over the bud section with raffia (Pl. IV, fig. 2), and, as a preventive against the admission of water during the process of uniting, a little soft grafting wax may be smeared across the upper transverse cut and the whole wrapped with a narrow strip of waxed cloth (Pl. IV, fig. 3). The wrapping should be started at the bottom, each wrap being half covered by the succeeding one; this will effectually keep out moisture during wet weather. As a protection against the heat of the sun, strips of paper, 8 inches long by 6 inches wide, should be tied around the stem of the stock an inch or two above the bud, but covering it (Pl. V, fig. 1), allowing the bottom part to remain open. After the sixth day the paper covering should be removed, and after the tenth day the waxed cloth may be taken off. By the fifteenth day the buds will have united sufficiently to allow of the removal of the raffia. This method of budding will be found to give an exceedingly satisfactory union. Experience has shown that with carefully selected buds from 1-year-old wood and healthy, vigorous growing seedling stocks, every section of bark will unite.

OTHER METHODS OF BUDDING.

Sometimes, when the seedling stocks are small and the size of the section of bark necessary for the union will more than cover half of the circumference of the stem of the stock, a quick growth on the part of the stock will produce a swelling immediately above the upper transverse cut in the bark. This can be averted by the use of a triangular patch bud (Pl. V, fig. 2), with one of the angles pointing upward. In using this method care must be taken that the three sides of the bud section should exactly fit the sides of the space prepared for them. It will be found advisable to smear a small quantity of soft grafting wax over the cut parts after the bud is in position and before tying with raffia. This makes an exceedingly neat union and is best used with small buds. Large ones need a larger section of bark attached.

In patch budding (Pl. III, fig. 1) a rectangular piece of bark, similar in size to that given in Pl. III, fig. 2, is taken from the bud stick. A corresponding piece is removed from the stock and the section from the bud stick carefully fitted in its place. It is then tied with a strand of dampened raffia, but this is used only to keep the bud firmly in place; the top and bottom of the section are left uncovered, because there is a danger of the raffia injuring the cut ends, which are held tightly in place by narrow strips of waxed cloth covering all but the bud. A wrapping of paper is then given, as already described. The principal objection to this method of budding is that the sides of the bark are apt to rise somewhat during the growth of the stock. This, while in no way injuring or retarding the growth of the bud, does not have a very neat appearance for some time after the union is effected and may have a tendency to weaken the point of union, besides giving opportunities for harboring noxious insects.

STARTING BUDS INTO GROWTH.

It is desirable that the buds be started into growth as soon as possible after it has been ascertained that the union has taken place. Buds which are united to stocks having a large section of bark attached are liable to have more or less of the bark decay during the winter months. This occurs principally with young buds, especially when they are worked on 1-year-old wood. This would seem to be common to all the species of the hickory family, but where 1-year-old buds are used the danger is lessened considerably. However, in the latter case they lose their vigor in proportion to the time they remain on the stock without being encouraged to break.

In order to force the bud into growth it is necessary that the top of the seedling stock be removed, leaving only one or two healthy leaves at the base of the present season's growth. In a few days the buds in the axils of these leaves will push out, and they should be removed as soon as they can be handled, and on down the stem the small dormant buds formed in the axils of the leaves of the preceding season will burst into active growth and must be rubbed off at once. By this time the scion bud will have swollen considerably, and in a month's time it will have developed several full-sized leaves. With buds inserted up to the end of June there is abundant time for the development of a good-sized shoot. The terminal buds of these shoots reach maturity in the majority of cases, but this is of little consequence, as one of the lateral buds will push out strongly the following spring.

The practice of tying the growth of the scion to the top of the stock is a good one; it not only saves the soft growth from being whipped about by the wind, but it also secures a close, upright growth. At the beginning of the second season all of that part of the stock which is above the union should be carefully removed, not with a pair of pruning shears, but with a sharp knife, so as to leave a cleanly cut surface, with the bark uninjured. The cut surface should be covered with melted grafting wax to prevent decay.

TRANSPLANTING BUDDED TREES.

The pecan is usually regarded as a difficult subject to deal with in transplanting. A large percentage of the trees die back after being placed in their permanent positions from nursery rows. However, if certain precautions be observed it will be found that there is no ground for the supposed difficulty, as the pecan will withstand the ordeal of transplanting in a young state quite as well as any other forest tree. In transplanting the pecan its requirements must be carefully considered. In a young state it is a very deep-rooting subject, and any attempt to change its nature by coaxing the roots to grow near the surface of the soil will end disastrously.

Pl. VII shows part of a row of 3-year-old budded trees, which were planted during the spring of 1902, after being out of the ground for several weeks. In this row there are about 40 plants, and only one of them shows signs of poor health. The work of removing these trees from nursery rows was evidently carried out with no more care than is ordinarily bestowed on young forest trees, except that a fairly successful attempt was made to save as many roots as possible. A few of the large roots were mutilated, and during a journey of a week or more from the nurseries the roots became dry. The mutilated roots were pruned and the cut surfaces covered with melted grafting wax to prevent decay. They have been treated since coming to the nursery of the U. S. Department of Agriculture as described below, and the result is a lot of young trees with new growths in every way satisfactory.

To insure the growth of the trees after transplanting, it is very necessary to avoid excessive trimming of the branches and roots. There must be at least one healthy undisturbed shoot of the previous season left on the plant untouched, because the large, plump axillary buds near the tip of the shoot will come into leaf with greater certainty and more quickly than will older buds on cut-back growths. Especially is this the case after the tree has undergone removal, involving the tremendous disturbance of the root system, which almost completely robs the plant for the time being of its water supply. Seedlings in nursery rows with undisturbed roots, when trimmed down to the small lateral buds on 1 or 2-year-old wood, will start as readily, if not as strongly, as the buds near the end of the most recent growth. It must be remembered that the terminal buds of the pecan very seldom grow. They sometimes do so in seedlings, but very seldom after a certain age. This is shown in Pl. I, fig. 2, Pl. II, fig. 1, and Pl. VI, which represent the growths made during three seasons. In Pl. I, fig. 2, the large, plump bud near the terminal contains the flowering branch. The branch shown in Pl. II, fig. 1, is developed from this bud. Pl. VI shows a still further development. The small, dead stump between the two living shoots represents the position occupied by the nuts the preceding year, while the two shoots are from two of the large buds near the nut. (Pl. II, fig. 1.)

In transplanting young trees, especially those which are to a certain extent weakened by the operation of budding, it is impossible to save all of the lateral roots during the operation of digging from the seed rows. It is, however, very desirable that as few as possible be sacrificed. Very careful lifting will pay for the extra labor. In seedling trees the taproot is usually severed much too near the collar and at too early a stage. It must be allowed to grow the first and second seasons if the seedlings are to be budded, because when removed at the end of the first season or the beginning of the second the weak growth will render it impossible to perform any budding operations during that year. Therefore, it is not till the third year that the taproot can be interfered with, but it is well not to risk touching it until the growth of that season is completed, for the reason that although the shoot made from the inserted bud makes considerable growth the same season it is put on, it will make very large growth the season following. The budded seedlings will then bear removal. They may have a small part of the taproot removed and be either planted permanently or in nursery rows. The budded seedlings of the present day, if the variety be a good one, are retailed at about $2.50 apiece. When the tree brings that amount—and the supply is understood to be far short of the demand—it should be furnished with good roots. If it is worth that sum to the purchaser, it is certainly entitled to a little further expenditure of time and care in the preparation of suitable conditions under which to grow. The retention of roots at least 2½ feet below the surface of the soil is desirable. If the ground in which the young trees are to be placed is not composed of good soil to that depth, it should be supplied. A good start the first year after planting means everything to the future tree; a bad start will, in the majority of cases, mean a sickly tree for a long time and an unprofitable investment in the end. With the roots deep in good, light, loamy soil the tree is to a certain extent independent of moisture from the surface. When growth begins in earnest, the roots will grow in the direction of the food supply. The severance of a large portion of the taproot saves a good deal of labor in digging and planting, but it means a complete defeat of nature's method in supplying the wants of the tree. Anyone who tries the two methods and compares the results will be convinced in one season in favor of large roots.

As a further precaution, the roots should be plunged in liquid mud the moment they are free from the soil and never be exposed for a minute longer than is necessary, as they too often are, to the drying influence of the air. After taking from the mud, the roots should be wrapped in damp sacking, moss, or any other material which will hold moisture, and kept in this condition until they are about to be planted. They should then be again plunged in liquid mud, and while this is hanging to the roots they should be planted. When the soil has been well firmed about the roots of the tree and the hole is about two-thirds filled with soil, the remaining space should be filled with water. When this has disappeared, fill in the rest of the soil. A mulch of short grass, stable litter, or half-decayed leaves left on during the summer will supply favorable conditions. If these little details are faithfully attended to there is little danger that unsuccessful results will follow. A little extra expense is involved at first, but careless handling will be far more costly in the end.

PLATES.

DESCRIPTION OF PLATES.

FRONTISPIECE. Part of row of seedlings budded by new method on June 26, 1902; photographed August 15, 1902.

PLATE I. Fig. 1.—Branch of pecan, showing growth of two seasons, with old and new buds. A, 1-year-old dormant buds; B, current season's buds; C, small plump buds at base of growth, from which the leaves fall early. Fig. 2.—Twig of pecan; top part of season's growth, showing buds during winter; A, flower bud; B, terminal bud.

II. Fig. 1.—Fruiting branch of pecan, developed from bud shown in Plate I, fig. 2, A. A, buds from which the growth of the following season is developed, the buds, B, remaining dormant. Fig. 2.—Seven-year-old branch of *Hicoria laciniosa*. A, growth made from buds which stayed dormant during seven years; B, dormant bud in good condition.

III. Fig. 1.—Patch budding. Two-year-old seedling pecan with piece of bark removed. A, bud with section of bark attached, ready to be fitted on stock. Fig. 2.—Seedling pecan stock, showing incisions made in the bark with a knife previous to lifting the bark; A, bud with section of bark which has the sides shaved down, ready to be inserted under the bark of the stock. Fig. 3.—Seedling pecan stock, with bark raised and ready for bud to be inserted.

IV. Fig. 1.—Seedling pecan stock, showing bud in position ready to be tied. Fig. 2.—Budded seedling pecan, the wings of bark on the stock almost covering the bud section. Both are held securely in position while the union is being accomplished. Fig. 3.—Budded seedling pecan, showing the method by which the narrow strip of waxed cloth should be applied.

V. Fig. 1.—Seedling pecan budded, showing how the paper covering should be fastened for protection from sun. Fig. 2.—Triangular budding. Seedling pecan, with triangular section of bark removed; A, bud of variety to be propagated ready to insert in stock.

VI. Branch of pecan, showing shoots made from buds near the base of the nut cluster, as seen in Plate II, fig. 1, A; A, position occupied by nut cluster during preceding year.

VII. Three-year-old budded trees transplanted during March, 1902; photographed August 15, 1902.

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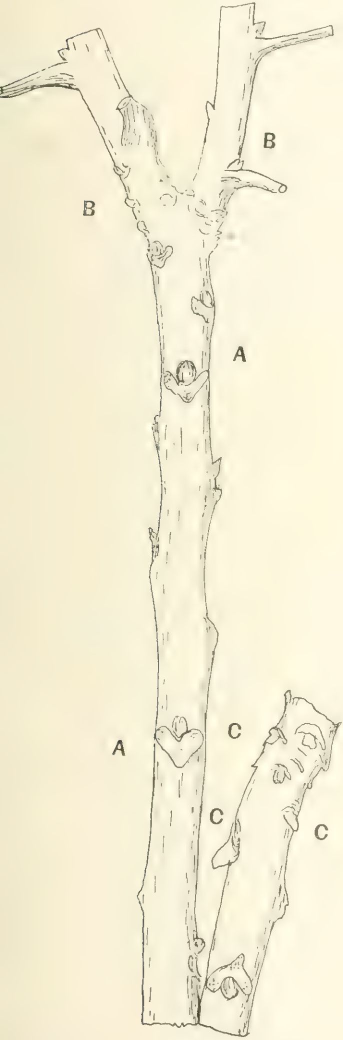


FIG. 1.—PECAN BRANCH—SUMMER CONDITION.

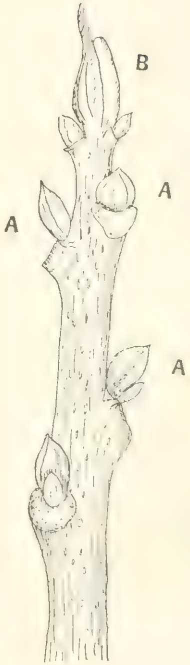


FIG. 2.—PECAN BRANCH—WINTER CONDITION.

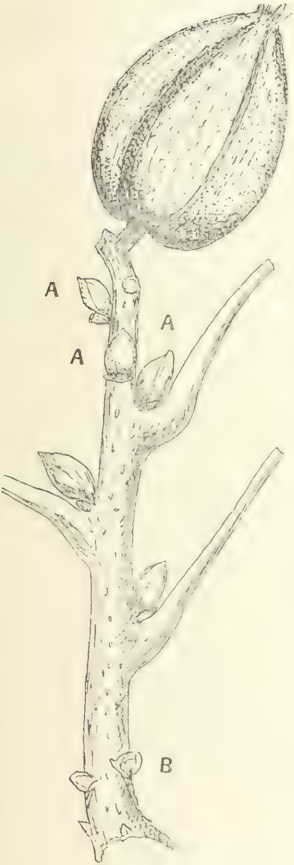


FIG. 1.—PECAN BRANCH—FRUITING CONDITION.

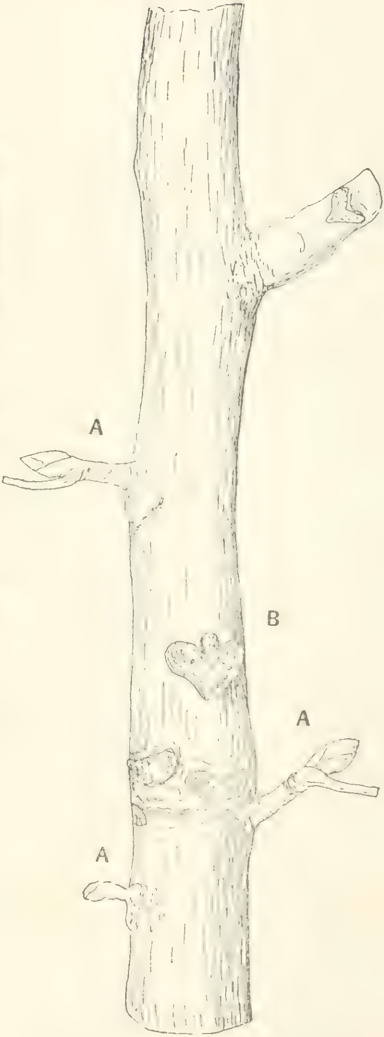


FIG. 2.—SEVEN-YEAR-OLD BRANCH OF HICORIA LACINIOSA.

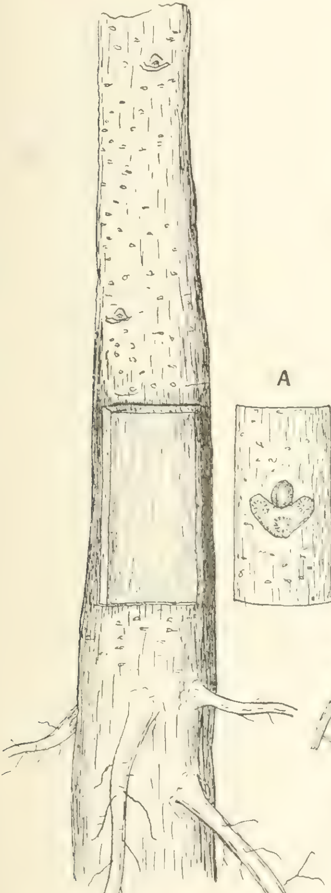


FIG. 1.—PATCH BUDDING. BUD READY FOR INSERTION.

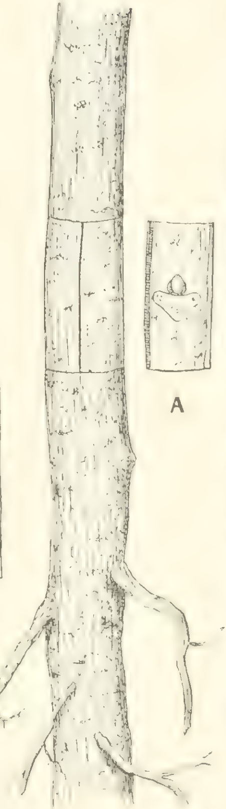


FIG. 2.—SEEDLING PECAN STOCK. PRELIMINARY INCISIONS IN BARK.

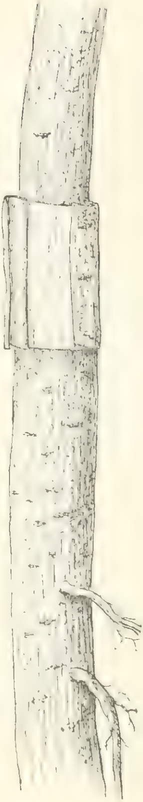


FIG. 3.—SEEDLING PECAN STOCK. BARK RAISED READY FOR BUD.

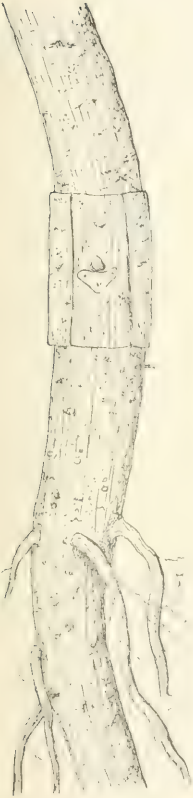


FIG. 1.—SEEDLING PECAN STOCK. BUD INSERTED READY TO BE TIED.

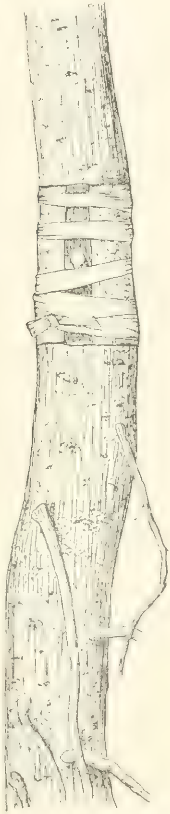


FIG. 2.—BUDDED SEEDLING PECAN. BUD INSERTED AND TIED.

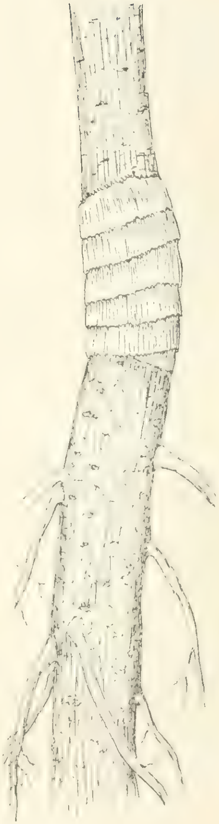


FIG. 3.—BUDDED SEEDLING PECAN. BUD WRAPPED WITH WAXED CLOTH.

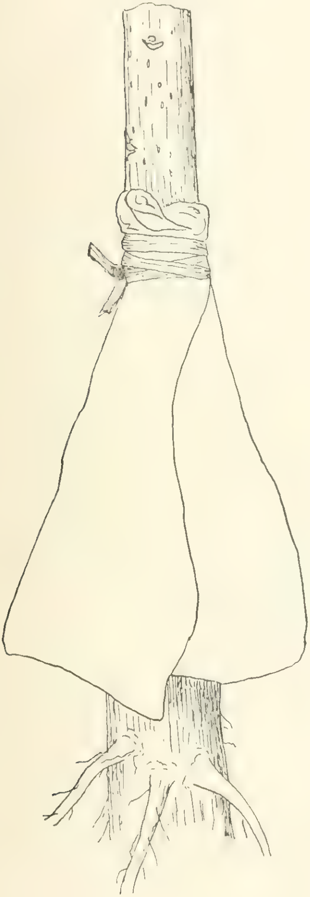


FIG. 1.—BUDDED SEEDLING PECAN, COVERED WITH PAPER.

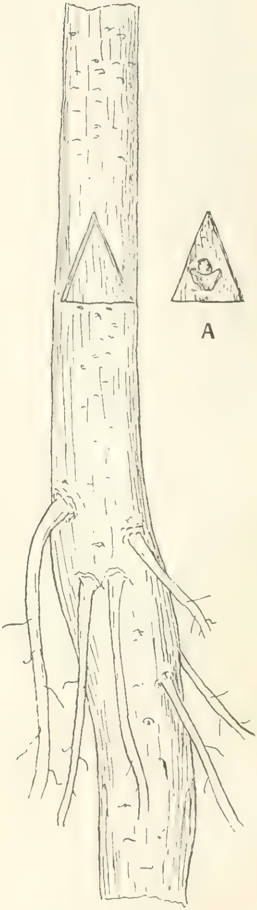
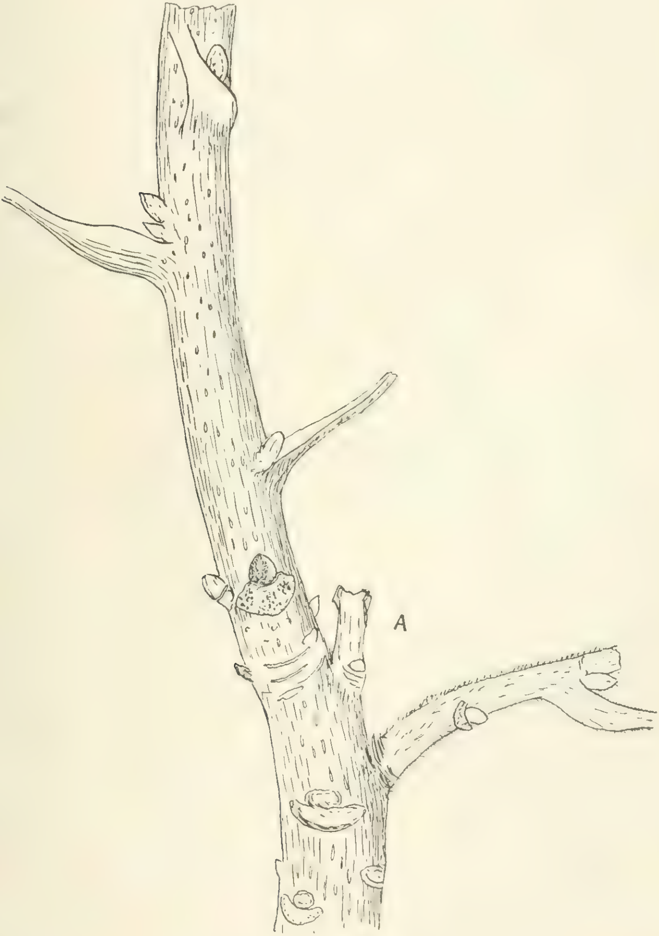


FIG. 2.—TRIANGULAR BUDDING. BUD READY FOR INSERTION.



BRANCH OF PECAN, SHOWING SHOOTS FROM BUDS NEAR NUT CLUSTER OF PREVIOUS SEASON.

THREE-YEAR-OLD BUDDED PECAN TREES RECENTLY TRANSPLANTED

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